THE BUILDER

INCORPORATING

"ARCHITECTURE" and "THE BRITISH ARCHITECT"

VOL. CLXXVI FEBRUARY 4, 1949 No. 5529

THIS WEEK'S NEWS

PAGE

TECHNIQUE AND COSTS relevant to house building in stone were described in some detail by Mr. R. Fitzmaurice, B.Sc., M.I.C.E., Hon.A.R.I.B.A., at the recent conference on "House Building in the Stone Districts" organised by the Housing Centre. 147

THE suggestion that in the future the architect must more and more play a minor role in big affairs rather than be the sole master of small ones was made by Mr. R. F. Jordan in his inaugural address as Principal to the A.A. 150

THE Building Apprenticeship and Training Council has reviewed the position of apprenticeship and has made a report on recruitment and training. A special report deals with the recruitment of masons. 151

SPEAKING at the annual general meeting of the N.F.B.T.E., Mr. F. M. Sleeman, the retiring President, said he took a fairly optimistic view of the industry's prospects, both short and long term. 158

THE Southern Counties Federation of Building Trades Employers has approved a report on "Higher Education and Training for Management in the Building Industry—Scholarship and Welfare Fund," prepared by a sub-committee of its Apprenticeship and Education Committee. 161

FIRE PROTECTION OF BUILDINGS

WE do not hesitate to offer constructive criticism of the activities of Government Departments when we feel that it will be helpful to the Departments and in the public interest to do so. It is therefore with the greatest pleasure and satisfaction that we offer compliments and praise when they are justly due, as they undoubtedly are, to the Home Office upon the issue of part four of their "Manual of Firemanship." This volume deals with the construction of buildings and their internal protection: its 140 pages are packed with well-authenticated information about the behaviour in fires of the elements of building construction, individually and in various normal combinations. Principal attention is given, as one would anticipate, to traditional building construction, because the vast majority of buildings to which a fireman might be called are still of the traditional type, but prefabricated constructions are not overlooked. There are also sections dealing with permanent fire-fighting installations such as sprinklers, drenchers, dry rising mains and the like.

One cannot but be gratified that the science of fire-fighting in Britain has reached the stage that fire-fighters are provided with so vast and detailed an education in building construction; and that it is fully appreciated at the Home Office that the protection of property from too much damage in case of a fire, as well as the safety of the firemen themselves, is dependent upon a knowledge of the potential behaviour of each and every one of the innumerable materials that enter into modern building construction. The science of fire-fighting has travelled incalculable distances since the days when a plaque on the wall of a building showed that that building was insured with a particular fire-insurance company whose primitive private brigade would hasten to render assistance if a fire broke out. In these days the public fire-brigades are equipped with effective appliances and with a competent knowledge of every aspect of the problems they have to tackle. The extent to which this knowledge has been increased by the experience of fires caused by bombing during the late war is amply testified by the Home Office Manual, which includes a hundred and more photographs and illustrations which give ample evidence of the war-time experience. It is quite clear that careful and detailed records were made and kept of every significant outbreak of fire during the war years and that trained observers made adequate notes of all that took place. The fruits of this faithful work are to be found in the Manual, and they are invaluable for the training of fire-fighters. One cannot but commend the fire-fighting personnel who throughout the war years coolly and effectively dealt with the actual conflagrations and at the same time took careful observation of any occurrence which they knew would be likely to provide valuable information for use in future "incidents."

The rather terrifying wealth of building and constructional knowledge which a qualified fireman is now expected to acquire, in fact must acquire, in order to deal effectively with outbreaks, points clearly to the need for architects, engineers and builders to make themselves thoroughly acquainted with the behaviour in a fire of the materials and equipment they specify or use. It has, perhaps, been too readily assumed in the past that the observance of the minimum requirements of building bye-laws in so far as they deal with the risks of fire is sufficient, but although the bye-laws relating to fire are the oldest of all, dating as they do in London from the year 1667, yet they vary from district to district and few building owners are likely nowadays to be satisfied with a bare minimum of fire precaution in the construction and equipment of their properties. It is probable that the local authorities will also realise that fire risks demand closer attention to constructional detail and that the report of the Fire Grading Committee (a joint committee of the Department of Scientific and Industrial Research and the Fire Offices Committee) which is mentioned in the Home Office manual will point the way to a revision of building bye-laws in some directions or at least to a completely informed interpretation of the bye-laws that already exist. In any case it is to be hoped that a Code of Good Building Practice will be issued to incorporate the findings of the Fire Grading Committee as has already been done in connection with several others of the Study Committee Reports of the Ministry of Works.

The vivid presentation by the Manual of so many structural factors which have a relation to fire risks inevitably brings to mind the complexity of the problems which face the fire insurance companies when they assess the appropriate insurance premium to be charged upon a particular building, and when one realises that a fire insurance premium is a permanent and inevitable tax upon a building throughout its life it is obviously well worth while for the building owner to insist upon the incorporation in his property of every practicable feature which might, without detracting from amenities, attract a reduction in insurance premium. The extent to which varying premiums might be arranged so as to reflect, more definitely than may be done at present, the advantages or disadvantages from a fire risk point of view of building techniques, of which there is adequate experience, is a problem which might repay detailed examination by commercial experts.

Such considerations must inevitably arise in the mind as a result of reading the Home Office Manual and there are so many other features contained in it that are of day-by-day interest to architects, engineers, builders

and the manufacturers of the enormous range of building materials mentioned and discussed that one is forced to the conclusion that the Manual should be read very widely and retained for reference in every building office. It has one fault—there is no index; consequently, ready reference to individual factors among the hundreds mentioned is difficult: this may be no disadvantage to fire-fighting personnel who have been taken through the Manual as part of their training and are consequently well acquainted with the whole lay-out, but it is a distinct disadvantage to the layman who wants information on a particular point and may have to read through a whole chapter of the Manual to find it.

It is with diffidence that one recommends busy professional and commercial men to acquire and read a newly-issued publication of this kind. There are so many reports of various kinds being circulated in these post-war years that a busy man cannot possibly read them all; and yet he ought to know something about them, and if in the interests of his own and national efficiency he needs to do so, then it is only fair that they should be fully indexed to facilitate ready reference.

So vast is the output of published material in the building industry that it might be worth while for publishers to co-operate in producing a universal index to all the current published works on building, to be kept up to date annually, or perhaps the Government might do so as an assistance to those who on the one hand are urged to concentrate all their attention on production and on the other to keep up to date by constant reading.

ANDALUSIAN VILLAGE.—From a photograph by B. H. Cox, shown in the Exhibition of Members' Photographs at the Architectural Association. (*See page* 146.)

NOTES AND NEWS

"Doing Things" to Houses.

SPEAKING on the subject of "better housing standards," Mr. Bevan recently advised local authorities to be "more imaginative." "Within limits," he said, "it is a good thing to encourage tenants to do more to their own houses—the difference between a home and a house is how much one is allowed to do to it." Everything depends, of course, upon what the tenant seeks to do, and where. Inside the house no one would wish to interfere with the expression of his personal taste in, say, carpets or wallpaper; but outside, his activities should be carefully controlled in the public interest. We are only too familiar with the "improvements" which some people quickly make to their houses when there is nothing to restrain them—for example, "rustic" porches round front doorways; sham half-timber nailed to sober brick elevations; violent colour contrasts wherever paint may be applied, castellated dwarf walls to front gardens, where grotesque gnomes with little wheelbarrows sport immovably with cast-concrete rabbits. Until popular taste shows radical improvement it is unwise to encourage it to express itself, particularly in places where it can give public offence. We do not suppose that the Minister would wish to encourage bad taste, but where is the line to be drawn? If local authorities should decide to act on the Minister's suggestion those "limits" would need to be very strictly defined.

One interesting aspect of the Minister's remarks on ownership will not escape attention. We would suggest that he should look into the logical implications of the step he proposes. Unwittingly, it would seem, he concedes the very point which has so urgently been pressed by builders and large numbers of the public. The primary urge to improve property comes from the desire to improve one's *own* house; though Mr. Bevan refers to ownership, in fact he has not this in mind. Tenants have little incentive to make improvements, and for that reason tenancy can never exert the stabilising influence of ownership.

Lambeth's Housing Display.

A VISIT to Lambeth Town Hall last week was well worth the journey, for the standard of work in the schemes submitted for the Leigham Court-road Housing Competition was impressively high. Gathered together were some 70-odd schemes, most of which displayed many attractive features, but it was notable that the accent seemed to be upon site planning, with emphasis on good aspect and prospect and the landscaping of existing trees, and the simplicity and domestic quality of elevations. This last point is important, for in this year 1949 there are indications that we have arrived at a fairly sound solution of domestic design; a solution which retains much of the best features of the past, but which also strives for technical efficiency that may take its place, unobtrusively, in the organism of the structure.

In reaching this stage many growing pains have been experienced, not the least vicious of these being the inter-war spasm of concrete functionalism.

The designs submitted in the Lambeth competition suggest that although it would be stupid to imagine we have reached the zenith of domestic design, we have at least arrived at a stage when the problem lies before us in simple terms.

Catholic Artists and Craftsmen.

THE Eighth Annual Exhibition of Catholic Art now showing at the R.I.B.A. is remarkable for some extremely fine sculpture and wood carving. The series of panels for "The Stations of the Cross," executed in Caen stone by Anthony Foster, have a beauty of their own which is further enhanced by the quality of the medium used. Again, Peter Watt's "The Resurrection" (in Hoptonwood) is sympathetically handled. Both these sculptors exhibit an outstanding sensitivity toward their subjects and their materials.

Oak has always served ecclesiastical sculptors well, the graining of the wood offering good scope for bold treatment, and P. Lindsey Clark, in his "St. Ursula," and J. I. Allenby with "St. John at the Foot of the Cross" both take full advantage of their opportunities in using this very fine wood. It is an attractive exhibition, covering a surprisingly wide field of activity, including silver ware, vestment design, attractive oil paintings and some excellent tapestry work.

The Guild of Catholic Artists and Craftsmen are to be congratulated upon an impressive year's work and on holding their exhibition at the R.I.B.A.

Architect's Department, West Riding.

A NEW departure is announced in the organisation of the County Architect's Department, West Riding C.C., whereby the County Architect, Mr. Hubert Bennett, F.R.I.B.A., will be assisted by three Deputy County Architects, two of them dealing with the administrative responsibilities on behalf of the County Architect, and the third dealing entirely with the design and production side of the office. This last post is advertised elsewhere in this week's issue.

In sending this information Mr. Bennett writes:—"There is no doubt that this is a new departure in procedure, long overdue. In future the organisation of the West Riding County Council Architect's Department will be divided between staff entirely engaged on the architectural aspect of the works, and these members of the office will not be swamped with the vast amount of administrative work required to be carried out. At the present time the department is carrying out approximately one million pounds' worth of work on new educational buildings, and a further half-a-million pounds' worth of education work is being carried out in collaboration with private architects."

New Altar for St. Bartholomew's.

THE Chancellor of the diocese of London, Mr. J. P. Ashworth, at a consistory court on January 29, in the church of St. Bartholomew the Great, Smithfield, allowed a petition for a new altar in the church, which is to cost £500. Lord Mottistone (Messrs. Seely and Paget, 41, Cloth Fair, E.C.1) is the architect.

Yale Prize for Sven Markelius.

SVEN MARKELIUS, internationally known Swedish architect and a member of the United Nations' Architectural Commission, has been chosen to receive Yale University's Howland Memorial Prize. The Howland Medal is "awarded to the citizen of any country in recognition of some achievement of marked distinction in the field of literature or fine arts, or the science of government." Mr. Markelius is to visit the U.S.A. in the spring, and will serve as Visiting Critic in Advanced Architectural Design at Yale. The presentation will take place at that time.

Practical Citizenship.

As part of their Citizenship Course, a group of senior students of St. Martin's High School for Girls, Tulse Hill, are making a short study of life and work in London, one of the subjects being housing.

The Lambeth Borough Council encourage citizens to take a live interest in local affairs and arrangements were made for the girls to be taken on a coach tour of the borough recently to see how Lambeth is tackling its housing problems.

The girls asked to see some condemned property, a war-damaged area, and new housing estates, and the tour was made as comprehensive as possible. Each girl was provided with extensive notes dealing with the places to be visited; the extent of Lambeth's problem (four-fifths of their total number of dwellings were damaged by enemy action); the solutions adopted; the method of selecting tenants from the 15,075 families on the waiting list; and a brief statement of the Council's rent rebate and equalisation scheme.

A.A. Party to Gordon Brown.

THE Council of the Architectural Association on January 31 held a farewell party to Professor Gordon Brown, who is leaving to take up his appointment to the Forbes Chair of Architecture, Edinburgh University.

Liverpool Blitz Victims' Memorial.

THE city architect of Liverpool, Mr. Ronald Bradbury, B.A., F.R.I.B.A., has been responsible for the design of a £4,400 war memorial which the corporation are to erect in Anfield Cemetery, where 559 citizens who were killed in German air-raids share a communal grave. The grave will be raised a foot higher than the surrounding ground. A Portland stone kerb, which will enclose it, will be inscribed with names, where known. It will be topped with turf into which will be laid, flat, such memorial stones as have been privately erected by relatives of the dead. A path of Yorkshire flags will run along the foot. Two steps will lead to a paved platform, surrounded by a raised flower-bed, a wall with a seat, and an inscribed memorial stone decorated with plaques on which will be carved the city emblem and the badge of the Air Raid Precautions service. At the end of the grave, a small paved enclosure will contain a second seat. The approach will provide a platform on which memorial services can be held.

Deputy Architect for Stevenage.

MR. BRIAN BUNCH, chief assistant architect to the City Architectural Department, Coventry, has been appointed deputy architect and planner to the Stevenage Development Corporation.

Professional Announcements.

MR. LAURENCE KENNARD, F.R.I.B.A., F.R.I.C.S., and MR. C. W. LOWE, A.R.I.B.A., hitherto practising under the name Laurence Kennard, wish to announce that the title of the firm will be in future Kennard and Lowe, architects and surveyors, 14, Railway-approach, London Bridge, S.E.1.

MESSRS. SINCLAIR AND NEWTON, quantity surveyors, of 129, Balham High-road, S.W.12, have set up a new head office at 87-88, Newman-street, W.1 (tel.: Museum 4747). War damage inquiries should be addressed to the Balham office.

CATHEDRAL TOWERS, BRESLAU. From a photograph by R. Lovell Phillips, shown in the Exhibition of Members' Photographs at the A.A.

COMING EVENTS

Monday, February 7.

"HOMES FOR LONDON."—Exhibition at Charing Cross Underground Station. Opening by Mr. Bevan, Minister of Health. 3.30 p.m. (Open until February 26, 10 a.m. to 7 p.m.)

ROYAL INSTITUTION OF CHARTERED SURVEYORS.—Discussion on Mr. E. C. Strathon's address on "The Practical Aspects of Valuations under Part VI of the Town and Country Planning Act, 1947." 12, Great George-st. 5.30 p.m.

THE TOWN AND COUNTRY PLANNING ASSOCIATION.—"The Preservation of Campden Hill," by Mr. Gilbert McAllister, M.A., M.P., Prof. W. A. Robson, Ph.D., and Lt.-Cmdr. Peter Scott, M.B.E., D.S.C. The Planning Centre, 28, King-st., W.C.2. 6.15 p.m.

TIMBER DEVELOPMENT ASSOCIATION.—"Framed Timber Structures," by Mr. R. T. Walters, A.R.I.B.A. Fyvie Hall, Polytechnic, Regent-st., W.1. 7.15 p.m.

THE SOCIETY OF ENGINEERS.—Presidential address by Mr. E. S. Waddington, F.S.E., M.Inst.W.E. Geological Society, Burlington House, W. 5.30 p.m. (Followed by annual dinner at Criterion restaurant.)

THE INSTITUTE OF TRANSPORT (Metropolitan Section).—"Inland Waterways as affected by the Transport Act, 1947," by Mr. W. L. Ives, A.M.Inst.T. Livingstone House, Broadway, S.W.1. 6 p.m.

Tuesday, February 8.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—President's address to students. Criticism by Mr. Anthony Chitty, M.A. (F.), of work submitted. Presentation of prizes. 66, Portland-pl., W.1. 6 p.m.

THE HOUSING CENTRE.—"Rent Tribunals," by Mr. I. V. de Yorke. 13, Suffolk-st., S.W.1. 1.15 p.m.

THE ILLUMINATING ENGINEERING SOCIETY.—"The Lighting of Churches," by Mr. L. C. Rettig. Lighting Service Bureau, 2, Savoy-hill, W.C.2. 6 p.m.

Wednesday, February 9.

LONDON MASTER BUILDERS' ASSOCIATION (Central Area, No. 1).—74th A.G.M. Address by Mr. Nigel Hannen, B.A., M.I.O.B. Derry and Toms Restaurant, High-st., Kensington, W.8. 12.45 p.m.

TOWN AND COUNTRY PLANNING ASSOCIATION.—"Three Forces in Planning," by Mr. G. Bell Barker. 28, King-st., W.C.2. 6.15 p.m.

Thursday, February 10.

THE LONDON SOCIETY.—Mr. Herbert A. Cox, F.C.A., F.S.A., Hon. A.R.I.B.A., on "Old St. Paul's and Its Environment." Royal Society of Arts, 6-8, John Adam-street, Adelphi, W.C. 5.30 p.m.

TOWN AND COUNTRY PLANNING ASSOCIATION (Planning Forum).—"Railways and Town Planning," by Mr. F. J. Wymer and Mr. R. B. Hounsfield. 28, King-st., W.C.2. 6.15 p.m.

ASSOCIATION OF BUILDING TECHNICIANS.—"Modern Concrete on the Job," by Mr. E. H. Collier, A.M.I.C.E. Caxton Hall, Westminster. 7 p.m.

THE ARCHITECTURAL ASSOCIATION

Exhibition of Members' Photographs

HAS the camera ousted the sketching block? Perhaps to a certain extent it has, for the speed of modern travel makes it possible to visit so many more places within the short space of a holiday that there is every encouragement to do in a few seconds with the camera that which the sketcher's pencil achieves only in as many hours. However, one cannot help but sigh for the days of the old A.A. Sketch Club and the work done by its members.

The exhibits in this exhibition at the Architectural Association show discernment and appreciation of unusual points of view in the varied subjects. Most of the exhibits are uniform in size, which helps the display generally, while the standard is the best for many years. A well-known subject, "The Customs House, King's Lynn," by P. Cutbush, does this architectural gem justice, and "Andalusian Village," by B. H. Cox, is a first-rate view, so typically a painter's subject that one can almost visualise the colour scheme. (This is illustrated on page 144.)

An unusual photograph of "St. Madeleine de Vézalay," by Patrick de Saulles, has a fine effect of light and shade, while an outstanding photograph is a portrait, "The Artist," by H. A. Rowen, showing a girl holding a palette and brush, apparently intent on the work on her easel and quite unconscious of the photographer. "Staircase Tower, Breslau," by R. Lovell Phillips, is a striking architectural composition with marked tone values.

"Sun-tipped Leaf, Kew," by Colin Penn, is unusual, and one cannot help but remark how this picture forms a pattern suggesting a fabric design.

By contrast, mention should be made of "Bletchingley," a typical English village scene submitted by an anonymous photographer. "Le Robine, Narbonne," by Patrick de Saulles; "Bethlehem," by R. A. J. Gazzard; and "Cathedral Towers, Breslau" (illustrated), by R. Lovell Phillips, are also worthy of mention. "George Washington, Wall Street," by D. J. Hinton, is a distinctly well-chosen view with the light concentrated on the sculptured figure.

These are but a few of the excellent photographs in the exhibition, which is open daily until February 25 from 10 a.m. to 6 p.m.

FROM "THE BUILDER" OF 1849

Saturday, February 3, 1849.

WANTED in an Architect's Office in the country, about 25 miles from London, a YOUNG MAN as CLERK; he must be a good and expeditious writer, and able to make working and other drawings. Office hours from nine to eight. . . . (*From an advertisement.*)

A Monmouthshire Survey.

Two public lectures will be given by Sir Cyril Fox, P.S.A., F.B.A., at the University College Anatomy Theatre, Gower-street, London, W.C.1, on Tuesdays, February 22 and March 1, at 5 p.m. The subject will be "Building Techniques and House-Plans in the Fifteenth to Seventeenth Centuries: A Monmouthshire Survey."

BUILDING IN THE STONE DISTRICTS

A Housing Centre Conference

A ONE-DAY conference on house building in stone was held under the auspices of the Housing Centre at the Central Hall, Westminster, S.W.1, on January 1.

At the morning's session, at which MRS. PETER TENNANT, chairman of the Committee on Housing in the Stone Districts, presided, a talk on technique and costs of house building in stone was given by MR. R. FITZMAURICE, B.Sc., M.I.C.E., Hon. A.R.I.B.A., Deputy Chief Scientific Adviser, Ministry of Works.

After some early remarks on the history of stone for constructional purposes, Mr. Fitzmaurice said:—

An investigation is in progress in the division of the Chief Scientific Adviser, Ministry of Works, at the request of the Ministry of Health and in collaboration with the Building Research Station to examine the costs of house building in stone, and on the basis of this examination to see whether ways and means can be found to reduce the difference in cost between building in brick and stone and thus to make it possible economically to increase the use of stone in those localities where stone is the traditional material.

One thing is plain, however, and that is that the people who work in stone, and who take such pride in their work, do not take very kindly to detailed account-keeping and up to the present it has been virtually impossible to find detailed breakdowns of cost which, unfortunately, are a necessary preliminary to any really effective effort at reducing costs. I would appeal very strongly to anybody there may be at this conference who is interested in the subject and would collaborate with the Ministry in the production of reliable cost data from work in progress. I am quite certain that when we have hard facts to work on it will be possible to make more rapid progress in cost reduction.

The local character of the stone-building tradition and the fact that stone was used traditionally because it was the best and often the only material available locally for wall building, suggest that it was used because there were perfectly sound economic reasons for using it and it would be uneconomical to use anything else. Doubtless the architects and masons who used stone came to like it, but the basic reason for its use and its ubiquity was the fact that it was economical.

One may naturally question what are the conditions which have changed this economy. The first alternative to stone was brick. Brick only became a serious competitor when coal became cheap and when transport of coal and bricks became practicable. As soon as transport began to develop, the purely local character of building began to be lost and all sorts of difficult problems arose. Craftsmen were compelled to use materials with which they were unfamiliar and there was, in fact, a resulting deterioration in quality of building. This, however, is another story. The probability is that when brick first became available there would have been a tendency to use it as something new and fashionable and rather superior to old-fashioned stone. It is difficult to account for the force of the incursion in any other way. As with many of the early products of the industrial revolution, it is probable that the brickmaker was poorly paid and housed in comparison with the mason, who always ranked as one of the aristocrats of the industry. Brick was cheap because labour was cheap and coal was cheap. The probability is that it was cheaper to lay than masonry and being a more uniform product in shape and size it called for a lower degree of skill in laying.

There was another factor, however. The tendency was for masonry to be used solely in the traditional way, and even to-day this tradition persists. Walls are very thick and foundations and underbuilding are heavy. Knowledge of the actual properties of materials was scanty—local materials were abundant—there was no particular haste to build—so why bother to use material economically? Old practices persisted and, in fact, still persist. Stone is now used for houses in the main to preserve traditional character of building, and with the material all the traditional practices are retained. This one may criticise as good sentiment, but bad economics.

An exception to this generalisation can be found, however, in certain particular localities. The City of Bath is rightly famed for its elegance and for the fact that it possesses a unity quite remarkable for a place of its size. The reason for this is that it suddenly became a fashionable watering place in the 18th century and was laid out and developed by John Wood and his son. This would have been mainly a speculative development—speed was important, and economy, too—so we find abundant evidence of a very economical use of material which would repay study at the present time. For example, the walls of the upper floors of some of the less important houses were of ashlar, but only six inches thick; they do not seem to have been inadequate from the point of view of stability, though doubts may be felt as to whether they were good enough from the point of view of keeping the rain out, or of thermal insulation. The interesting point is that here is an example of the economical use of material which is definitely challenging by present-day standards. It would have been interesting to see the way the whole business was organised and the feverish industry which must have developed at the quarries when Bath was coming into existence. Did they, for example, standardise their details, and how was it done?

Reverting to the inroads of other materials into the field of stone masonry, we have noted that brick has been the principal competitor in the domestic field. There are other alternatives, however, and in the stone districts they assume a certain importance. Cement concrete in one form or another has been used very extensively. In its worst form—the rusticated concrete block—it can be seen over acres of suburban development and one can only say that brickwork, plain and unadorned, would be in better taste and much to be preferred. More questionable is the use of "reconstructed" or "artificial" stone. Here we have a product which consciously aspires to give the aesthetic quality of surface of the original natural stone but which can be moulded at relatively low cost to provide the more highly worked components. This material consists in the bulk of a plain concrete with a relatively thin facing. Reconstructed stone infuriates the purist but when made by skilled firms it cannot be distinguished from the parent stone, and it can be made to have a very high order of durability. Might I propound a heresy and suggest that the architecture of Great Britain would be richer to-day if Oxford and Canterbury Cathedrals had been been built of reconstructed stone? In these two examples the whole of the beautiful external detail has been lost on account of the poor weathering quality of the original stone. This is a question of sentiment and aesthetics and not one of economy, and I must leave it for people who are wise in these subjects. I put it on record, however, that the cement product has become a powerful competitor.

Economics of Natural Stone.

We have noted that the basic reason for the incursion of brick into the stone districts was primarily the abundance and cheapness of coal and the evolution of cheap and rapid transport in the industrial area. Brick was also cheap to erect and, at the time of its introduction into the stone districts, was not hampered by traditional practices conducing to unnecessarily massive construction. As a result of this the tendency was for the production of brick to be more highly mechanised, whereas stone was losing ground all the time and there would not have been the same inducement nor the money available to plough back into mechanisation. Machinery was certainly introduced at the quarries, but we do not see any very striking developments in the last 50 years. There are excavators to handle overburden, mobile cranes for handling the stone in the quarry, pneumatic drills for the stone face and mechanical transport. These mechanical developments are useful and obviously have an important effect on costs, but they are borrowed mainly from the public works industry. We do not see the same developments in machinery for working the building stone, and the frame-saw still holds the field for dressed stone, and it is not a quick tool. There are developments here, however, and we may see new tools which will revolutionise the winning and preparation of stone in the not distant future.

The Effect of Cheap Coal.

It is necessary to record, however, a very important change in the fundamental economy of building. I have pointed out that the main factor which has led to natural stone losing ground was the abundance of cheap coal. Coal is no longer as cheap or abundant as it used to be and the depletion of the nation's coal resources is now becoming an important factor. Brick and concrete require considerable quantities of coal for their production and natural stone very little. Here is a very important circumstance in favour of natural stone which may be expected to become even more important as time passes, and it is conceivable that it may result in a reversal of the trend and eventually lead to an incursion of natural stone into the districts where brick has hitherto held the field. This is an interesting subject for speculation and brings up questions of availability and resources in stone of which I know nothing, and you will have to hear evidence from bodies such as the Building Research Station and the Geological Survey.

You may be interested to have some actual figures on coal required for production of the materials for the construction of a house—they are striking.

France is a country with a very strong tradition of masonry construction, with abundant supplies of natural stones of excellent quality for building, and with the need to husband coal resources even

AMOUNT OF COAL REQUIRED FOR THE PRODUCTION AND TRANSPORT OF MATERIALS IN A SQUARE YARD OF WALLING

Construction	*Coal required*	*Cwt.*
11 in. cavity brickwork, plastered two coats internally	Low coal consumption brick	0.5
	National average	1.00
	High coal consumption	1.5
9 in. solid brickwork, plastered internally, pebble dash or rough-cast externally	Low coal consumption brick	0.5
	National average	1.00
	High coal consumption	1.5
8 in. concrete block, plastered internally, rough-cast or rendered externally	—	0.30
Masonry, 12 in.	Subject to wide variation	0.25 to 0.47

greater than in Great Britain. Consequently for her reconstruction it has been visualised that natural stone will play an important part. Thus the quantity of stone required for the whole programme of reconstruction is estimated at:—Dressed stone, 4,500,000 cu. metres*; Rubble, 107,000,000 cu. metres.*

40,000,000 cu. metres are earmarked for reconstruction of damaged buildings in ruined towns.

These are large quantities, and the Monnet plan envisages a considerable expenditure on the modernisation of equipment for extracting and converting building stone. Already some progress has been made and new methods of extracting, working and constructing in natural stone are to be seen. I feel very strongly that we shall find much information of value in developments in France, and it would repay us to maintain contact with our friends across the channel.

* Monnet plan.

Cost Differential Between Brick and Stone.

It has already been noted that a survey is being made of costs of building in stone at the request of the Ministry of Health, and a pilot survey was carried out in the Peak District. Unfortunately it was found that the smaller builders who do most of the house-building in stone are not in the habit of keeping detailed cost records, and it was not possible to find any information which would enable a close analysis to be made. When it is desired to reduce costs of any commodity a first requirement is to find out in detail where the money is actually going. Recommendations for economy can then be based on known facts, and positive results are much more likely to accrue. I would repeat what I said earlier, that the investigation now in progress would be very much facilitated by any help which those who are building in stone would care to offer in the shape of access to cost data.

On the basis of the inquiry made in the Peak District the following were the main points which were ascertained :—

(1) That on the basis of tender prices the increased price of a stone house over a brick house is of the order of £100 as compared with £50 before the war. These are *prices*, not costs.

(2) The main factors leading to these increased prices were the following:—

(a) Greater cost of external walling in stone as compared with brick, due to the greater volume of the wall and the greater cost of the constituent materials, especially the dressings to door and window openings, corbels, etc.

(b) Elaborate methods used for pointing external stone walls. Raised joints were often used.

(c) Increased area of the roof due to greater external wall thickness.

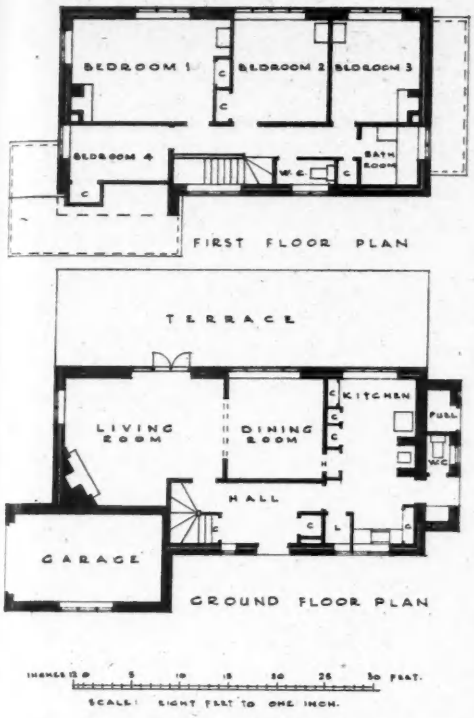
(d) Liberal use of dressed stone in chimney stacks.

(e) Heavier and larger foundations due to adherence to local traditions for stone walling and the greater area due to greater external wall thickness.

These remarks apply particularly to the "snecked rubble" walling, which is perhaps the most satisfactory indigenous form of construction. This was normally 16 in. thick.

(3) The rather elaborately worked dress-

A COTTAGE AT OVERCOMBE, WEYMOUTH.—The stone for this cottage, designed by Mr. E. Wamsley Lewis, F.R.I.B.A., cost 4s. 6d. per ton delivered, and the squared sawn spalls from the sawmills 10s. A ton made about 3 sq. yds. of walling 8 in. thick. The cottage was erected under the supervision of F. Holleyoak, master mason. Mr. T. Harrison, of Sutton Poyntz, was the carpenter and joiner; E. Roper, of Weymouth, the plasterer; and Messrs. Davis and Hadley, of Weymouth, installed the electrical system. With oak front door and gates, gravelled drive and a stone-flagged terrace along the south side, the total cost, in 1937, was £1,232 3s. 9d.



Plan of Cottage at Overcombe.

ings account for a very large proportion of the extra cost of the stone walling. The corresponding items in brick walling are trivial.

Possible Economies.

Up to the present a very limited pilot survey has been made and the recommendations which can be made are inevitably somewhat tentative. It can be seen, however, even on present knowledge, that appreciable savings are possible. Amongst these the following may be considered:—

(1) The "snecked rubble" walling is normally 16 in. thick and comprises a 4½-in. brick inner skin. It is suggested that the wall might be reduced to 12-13 inches thickness using a 3-in. clinker concrete slab in lieu of the brick inner skin. (Clinker concrete slab to conform to appropriate British Standard.)

(2) Simpler and less expensive methods of pointing might be used.

(3) By decreasing the thickness of the external walls there should be a useful saving in the cost of the roof due to the decreased area.

(4) By decreasing the thickness of the external walls there should be a useful saving in the overall dimensions of the foundations, and care should be taken at the same time to simplify them and ensure that nothing is in excess of the bye-law requirements.

(5) Dressings might be standardised to a certain extent and carried out in reconstructed stone. It was found that some quarries in the area were in fact producing reconstructed stone from their waste.

Possible savings of this sort might well halve the difference in cost between the "snecked rubble" walling and brickwork. There may be other economies which can be found in the extraction and preparation of the stone.

Owing to the lack of precise information the suggestions given above are based on estimates constructed on such details as could be ascertained locally. They are only applicable to the particular conditions studied in the Peak District. It remains to be seen what conclusions will be arrived at, as and when the survey is extended to other districts. So far as the figures go, however, the prospect of effecting some reduction in the cost differential between stone and brick is quite favourable. Given an adequate labour force it should be possible to revive building in stone in the localities where tradition and local custom demand its use. This, however, means that there needs to be some pruning of the traditional wall types to accord with modern knowledge of the stability of buildings and modern materials and methods of handling them.

Discussion.

In the course of the discussion which followed Mr. Fitzmaurice's paper, SIR LUKE FAWCETT, General Secretary of the Amalgamated Union of Building Trade Workers, said he disagreed with Mr. Fitzmaurice about the relative costs in the past of brick making and quarrying. Low rates of pay had been found in both quarrying and masonry, just as much as in brick making, and the industrial revolution had affected the two industries in the same way.

He pointed out that not all stone houses were attractive, and mentioned some in the Glasgow and Motherwell districts as being very undesirable. It was important to recognise the architect's rôle in the creation of a beautiful house; planning and environment played an important part.

He stressed the shortage of labour in the industry. Everything possible was being done to attract men, but owing to the policy of the last 30 years, less and less personnel had been drawn into the industry. The reasons for this were partly psychological, and partly due to the prevalence of the industrial disease silicosis, which had affected some quarries but from which the limestone areas were largely free.

MR. C. W. C. NEEDHAM, F.S.A., F.R.I.B.A., M.T.P.I. (Yorkshire representative on the Stone Committee), said he was the architect to half a dozen or so authorities in the stone areas of Yorkshire, and could endorse Mr. Fitzmaurice's proposals for reducing cost from his own experience before and after the last war. He had houses going up in Yorkshire now costing no more than normal brick construction. In some cases they were faced with stone from demolished houses, and in others with quarry waste; in other cases new stone was being used straight from the quarry. He believed that to cut down the work of the skilled craftsman would reduce prices. More men were needed to follow the craft of masonry, but he did not think there was much scope for them in small house building.

At the afternoon session, which dealt with housing in the stone districts to-day, MR. ANEURIN BEVAN, Minister of Health, promising his support in the revival of stone building, said he did not imagine there were any lovelier villages in the world than some of the stone villages in Great Britain, and especially the Cotswolds. They provided refreshment to the soul and delight to the eye. It would be a national misfortune if all our building in stone ceased.

Not only did we want to have stone houses, but architects who knew how to design in stone. Some people seemed to think that all that was necessary to achieved the desired result was just to substitute stone for brick.

There was no extra subsidy for building in stone now. The new Housing Bill was in preparation, and he could not yet say anything about it. However, this subject would not be overlooked. He promised to co-operate in the task of reviving one of England's most ancient and important activities.

In some parts of the country stone came naturally out of the soil, and little villages nestled unobtrusively in the valleys. It would be monstrous to spoil these with a red rash of industrial brick. Often, however, it was possible to build even in these districts with brick without impropriety, provided the brick buildings were not cheek by jowl with the old stone ones. A violent marriage of brick and stone spelt disaster, but a decent separation, where the two did not appear together in the same vista, had much to commend it.

The buildings that surrounded us were part of our social furniture, and it was the part of decent citizenship to recognise that not only was internal planning important, but that there were people outside who had to look at the exterior of our houses. The perpetual sight of ugliness produced a dwarfed and deformed spirit. We had suffered very greatly by having to live in the environment left by the industrial revolution. He believed that people were always better morally, mentally and spiritually if they lived among beautiful instead of ugly things.

In the ensuing discussion, MR. E. WAMSLEY LEWIS, F.R.I.B.A., explained how he managed to build in stone at a cost comparable with brick. He was lucky to be able to work near Portland, and he got waste from the quarries for 6s. 6d. per ton (before the war it had been 4s. 6d.). The real difficulty lay in finding contractors who would take on a job in an unknown material at a reasonable figure. The old craftsman was willing to do the work, but when an architect was invited to put up a price for a large housing scheme he had to go to an established contractor, who had no knowledge of pricing for stone, and would therefore say that building in stone could not be considered.

MISS JUDITH LEDEBOER, A.R.I.B.A., Chairman of the Housing Centre, summing up, said there were really three points covered by the Conference: money, men and new methods. They must hope that when the new Housing Bill was through, there would be some form of contribution to stone building. Then they wanted to be assured that the building industry would secure larger numbers of masons; this depended on men rather than materials. As far as the apprentice-master scheme was concerned, if any local authority wanted to build in stone, and could train men, then the scheme would apply, and nothing more than an application to the Ministry of Works was necessary. For new methods of stonework they were relying on the advice and guidance of Mr. Fitzmaurice.

*** The B.A.T.C. Report on "The Recruitment of Masons" is referred to on page 151.—ED.

THE ARCHITECT'S INHERITANCE

Mr. R. F. Jordan's Address to the A.A.

AT a meeting of the Architectural Association, held at 36, Bedford-square, W.C.1, on January 26, Mr. Robert Furneaux Jordan, F.R.I.B.A., delivered his inaugural address as Principal of the School. Mr. R. E. Enthoven (President of the Association) was in the chair.

MR. JORDAN, after speaking of the school, continued that it was impossible to be civilised without architecture, architecture being an envelope for man's activities. When civilisation had achieved most, as in the time of Pericles, Justinian or the Plantagenets, architecture had been the paramount art, being in itself the outcome of contemporary building philosophies or systems of thought. Equally, the more architecture had been of its own time, and the more fully it had exploited and sprung from the technical resources of its own time, the more immortal had been its achievements, because art forms were the result of weaving together all the strands of technics, life and thought of their age. Thus, when Pugin, a genius, thought he was escaping into the thirteenth century he was really qualifying as an eminent Victorian, because romanticism and escape were essential to the nineteenth century. They were not essential to the present time, and it was not the geniuses but the mediocrities who ran away from contemporary realities. It was only on the band wagon of his own time that the artist, conformist or rebel, could realise himself. As the second half of this century opened the architect-student faced certain glorious but shattering realities. One of these was that he had been born in the middle of the greatest social upheaval since the fall of the Roman Empire. The moral and material problems set by that upheaval lay all around us, and many of them involved architecture. The administrative instruments for their solution were being slowly forged as we moved from an age of private and commercial patronage into one of state patronage; and the material and technical instrument for their solution, i.e., a fairly advanced scientific industrialism, was emerging. These administrative and technical instruments had never yet worked together under stable economic conditions; when they did so almost anything might happen. We were moving out of an age in which the paramount art had been literature into an age in which, because the problem to be solved was the rebuilding of the cities, architecture might again become the paramount art, supreme and popular and the mother of the other arts.

A Definition of Architecture.

Some ten years ago he had defined architecture as the design and disposition of shelter for contemporary activities. The enclosure of space and provision of shelter was not in itself either great art or great science, but design implied a good deal more than a mere technical solution of the problem; it implied the further refinement and adjustment of the form and colour of the structure so that it might induce certain appropriate moods and emotions. For the architect science was the statement of the problem, and also the means of its material solution, and art was the skill, subtlety, humanity and poetry shown in the application of those means.

Mr. Jordan then attempted to make a picture of the world in which the architect of the near future might find himself. First, this age was likely to remain one of radical social change for a long time to come. It had begun the replanning of its cities. The actual building programme of the next half century must therefore be enormous, and was likely to include the design of shelter for entirely new activities. Education and health service suggested great vistas, and when housing and industry were no longer priorities at least 95 per cent. of our hospitals, theatres, hotels and railway stations would need rebuilding. Adding to all this the development of the City of London, and the building of new towns, there was something for the architect to be going on with.

Second, the architect must be more and more playing a minor rôle in big affairs rather than being the sole master of small ones. The team was already a potent reality. Third, the technical means through which the architect would have to work might be a fairly advanced scientific industrialism; so that building processes would be pushed back more and more from the site into the factory. If the architect was to be master of his job he would have to understand in principle the industrial operation and also the relation of an accurate working drawing to precision machinery.

Fourth, although architecture might be again the paramount art, we should be living under the shadow of a great literary tradition. Ever since the renaissance our culture had been borne upon the shoulders of printing so that we were committed to self-consciousness, even to sophistication. There could be no more Parthenons or Lavenham Towers, nor any realisation of William Morris's dream of the craftsman living through his life content in the daily synthesis between hand and brain. Between all that and ourselves was the nineteenth century, which could be likened to a straight line drawn across a page in the history of architecture. Above that line architecture was sculpture, but now the beauty of building must take forms born of our own philosophy, and for which quite self-consciously we had to find the source in our own building technique. Such forms were very tentatively showing themselves in scientific structure such as shell concrete. Industrial and scientific forms must be studied in the light of aesthetics and this raised the question of the teaching of design.

Fifth, the future might come near to being a nightmare—the vilest sort of scientific Utopia come true and inhabited only by barbarian technicians. The artist, and in particular the architect, might save us from that if architecture was the paramount art of the next 50 years. It might be a strange architecture, inevitably sophisticated; it might never be enjoyed by the people as medieval art had been. It would be an age in which every scrap of poetic vision, colour, richness and variety would be needed; then out of the attenuated forms of a scientific technique elegance might emerge. Above all, the very finest visual conception of cities would be necessary if the urban scene was to be saved from aridity and starkness.

Sixth, the falsity of nearly all Utopias was that they were self-contained worlds having neither past nor future. The architect in trying to see the world with which he had to reckon must avoid this; any vision of the future must grow out of scientific and political trends, but it must also carry over into the future a great deal of the past and present. There must not be such a concentration upon the urgent present that inheritance and tradition were forgotten.

The Great Divide.

Mr. Jordan continued:—

"Fortunately, although architecture may come into its own almost too quickly, it will do so, as I have said, still within the aura of a literary age and, therefore, one hopes in an age with sufficient historical awareness to use its own inheritance. That inheritance is complex in the extreme. I have said that the great divide between sculpture and façade architecture on the one hand, and scientific industrialism on the other, must be marked in the history books by a line ruled across the page; but if humanity, poetry, even sentiment, are to get their due, we must often look back across that line for inspiration. Less and less shall we bring actual forms and techniques out of the past, but more and more must we try to understand why architecture was great when it was great—why, for instance, at a particular moment, in a particular and rather small Aegean city, temples were placed on an Acropolis.

"In thus seeing what was right with the man when architecture was right, or wrong with him when architecture was wrong, we may learn a great deal. For one thing, we shall, of course, confirm my first point—that great art forms are of the essence of their age; we shall also learn that they had an inheritance, that megara have become temples and that wood has become marble. Between the Homeric and Periclean Ages a line was also drawn across the page but it was, after all, only a line between two chapters of a serial story that has not yet ended. The Renaissance and Reformation drew a line across the page, and yet the architects, painters, carvers, joiners and stuccadores in the first fine flush of the Renaissance owed at least as much to the essentially English Perpendicular as to their more obvious Mediterranean inspiration. So, perhaps, while we too have to draw a line across the page we shall, in the different context of a different age, bear a like relationship to the Victorian engineer-architects and to the 'Pioneers of the Modern Movement.'"

Among other points in this long and able address Mr. Jordan said the architect, since he was to be a key figure in the society of the future, must be an educated person. He must be a product of his time but a little above that time, creative and self-critical. One of the best contributions to design made by the Architectural Association had been the school programme with the real site and often the real client. The vision of a country school was attractive as well as being an antidote to our excessive urbanisation: to carry out one genuine rural programme, surveying and designing in fine landscape in consultation with local people should be an item in the architect's training. For this purpose it was not necessary for the Association to buy Blenheim Palace; there were such things as huts, tents and pubs; and it might be an advantage to change the site every year.

Discussion.

MR. HENRY BRADDOCK, moving a vote of thanks to the lecturer, said that Mr. Jordan, since he had come to the Architectural Association in 1934, had quietly gained the friendship and respect of its members. The Council left the welfare of the school in his hands with absolute confidence.

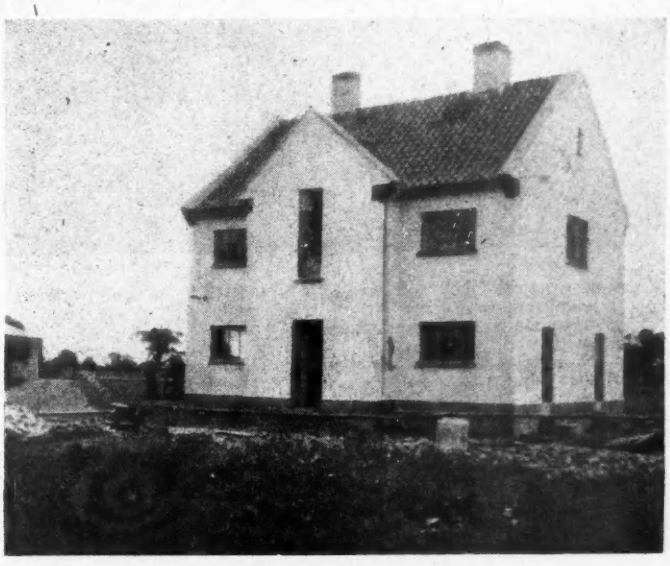
MR. COLIN OAKES, seconding the resolution for a vote of thanks, added his word of welcome and said that architecture must not be allowed to drift into scientific barbarism.

MR. A. F. SHANNON (Chairman of the Students' Committee) welcomed Mr. Jordan very warmly. As to the address he thought it would be a fine thing if the history syllabus of the Association could be enlarged. He sometimes thought students ceased learning anything about architecture as a living force as soon as they ceased learning its history.

MR. HOWARD ROBERTSON said the word "shelter" was used too much in connection with architecture. Mr. Jordan spoke of building in accordance with the philosophy of our time, but he (Mr. Robertson) did not think we were to have a philosophy of our time. Nor did he think that our architecture should exclude nostalgia and romanticism.

MR. G. EPSTEIN (a student) said he agreed with Mr. Jordan about the literary approach to architecture. As a foreigner he had noticed in England the influence of literature not only on architecture, but on painting and the general ideas of people. By directing the school strongly to such matters as industry, town planning and administration, Mr. Jordan would greatly counteract this literary tendency.

MR. A. R. F. ANDERSON said that under red tape and control architects lost sight of the fact that it was their job to guide other people in such matters as the houses in which they ought to live. Mr. Jordan had taken the country school into the realms of practicability. It was not necessary to have a great Georgian house; the country school might be run very happily in huts, tents and pubs. The point about real sites and clients was very important: real clients were very different from those the student learned about when training. It was a good thing for students to go into offices as soon and as often as practicable.

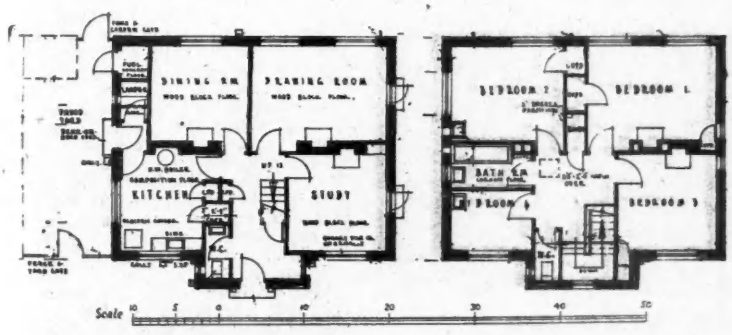


NEW RECTORY, GOLDHANGER, MALDON, ESSEX

LAWRENCE KING, F.R.I.B.A., ARCHITECT

THE Rectory illustrated is one of the first to be completed under a M.O.H. concession to parsonage houses which permitted such dwellings to have 1,500 sq. ft. of floor area. It is constructed with 11-in. cavity walls with standard metal windows and a pantile roof. The ground floor is wood block throughout, but the kitchen has a composition floor. Doors are flush type. Internal walls are of plaster and ceilings are of plaster board.

The quantity surveyor was Mr. L. C. Roberts, F.R.I.C.S., and the general contractors were Messrs. A. Tredget and Co., of West Mersea.



APPRENTICESHIP

Plight of Stone Trades

THE Building Apprenticeship and Training Council undertook, at the request of the Minister of Works, a review of the apprenticeship position in the building industry and has now submitted two reports entitled "Building Apprenticeship: Recruitment and Training" and "Recruitment of Masons."

These reports, published on Monday last by H.M.S.O., contain a number of recommendations which are being carefully considered by the Ministry of Works in conjunction with other interested Departments and organisations.

The recommendations include the following:—

(1) The objective should be an intake of 22,000 craft apprentices per annum divided in a definite ratio between the various trades. While, however, the Council have suggested a possible allocation of this total, they consider that a thorough investigation should be carried out to determine what the correct proportions should be.

(2) Sufficient work of the right variety and quality should be made available to produce conditions of stability for a period ahead.

(3) The Apprentice Master special training scheme, under which boys carry out the whole of a building job under competent instructors, should continue under the present agreed conditions, and the industry itself should keep its local apprenticeship arrangements under close review.

On the special needs of masonry the Council suggest that:—

(1) 2½ per cent. (or 550) of the total annual recruitment of 22,000 recommended should be masons.

(2) Urgent consideration should be given to the best way of providing more work in stone, and to the possibility of special financial assistance being granted to meet the extra cost of building in this medium.

(3) The Ministry of Works should consider the employment of apprentice masons on the maintenance of ancient monuments or other appropriate work carried out by the Department's direct labour force.

(4) Welfare facilities and protection from the weather in stone quarries should be improved and extended, and the widest publicity should be given to the national importance of masonry.

BASILDON NEW TOWN

A DEFINITE decision has now been taken to build a new town at Basildon in Essex. A public local inquiry was held on October 7, and, after considering all the representations made, the Minister of Town and Country Planning has decided the scheme shall go forward.

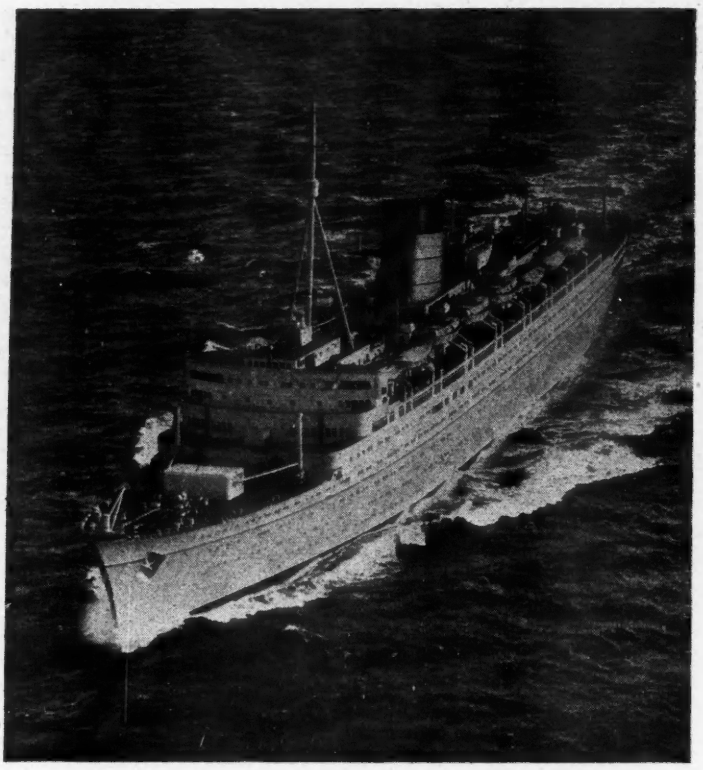
The area of the new town, some 7,834 acres, will be that proposed in the original draft designation order, with one very small modification which excludes the upper reaches of the Pitsea and Vange creeks. These waters come within the jurisdiction of the P.L.A.

Assurances have been given that there will be as little disturbance as possible of existing houses and bungalows during the early stages of development and that industry will provide opportunities for employment to both new and present residents. There are plans for improving rail communication with the area, and building in the vicinity of the London-Southend arterial road is to be restricted so that no houses shall be given direct access to the road.

" CARONIA "

Design of Passenger Accommodation

E. C. LEACH, F.R.I.B.A.,
Decorative Architect to the
Cunard White Star Ltd.



THE Cunard White Star liner "Caronia," which sailed from Southampton on her maiden voyage to New York via Cherbourg, on January 4, has been designed with a view to her employment for cruising, without seriously detracting from her usefulness for service on the North Atlantic.

Apart from the 10 decks and the public rooms, the "Caronia" has two beauty parlours, two hairdressing saloons, a lido and swimming pool, and a laundry capable of handling the washing and valeting of 2,000 persons in tropical weather conditions.

Two classes of passengers—First and Cabin—will be carried when the "Caronia" is on North Atlantic service, one class when she is cruising. The decorative theme is restrained modern in treatment, combining light veneered surfaces relieved with glass and metal- and leather-covered panels having focal points in decorative murals and statuary. All the public rooms are air-conditioned and low-tension fluorescent tubing in semi-direct or concealed troughing is used throughout for general illumination.

The majority of bedrooms are "outside" rooms and their decorative schemes consist of three main groups of treatment, using veneers, rexine and paint for wall surfaces. The veneers include bleached silky oak, petapsco and avodire, with matching furniture. Rexine in cream and blue has been employed in conjunction with furniture in African cherry, French walnut and silky oak in the second main group of rooms. In the third main scheme, where the walls are painted, delicate shades of primrose, grey and cream appear, with furniture in large African cherry, Australian walnut and bleached mahogany.

The following is a general description of the public rooms:—

OBSERVATION LOUNGE.—This plan is determined by the shape of the bridge front and forms a "horse-shoe" enclosed within the full width of the ship.

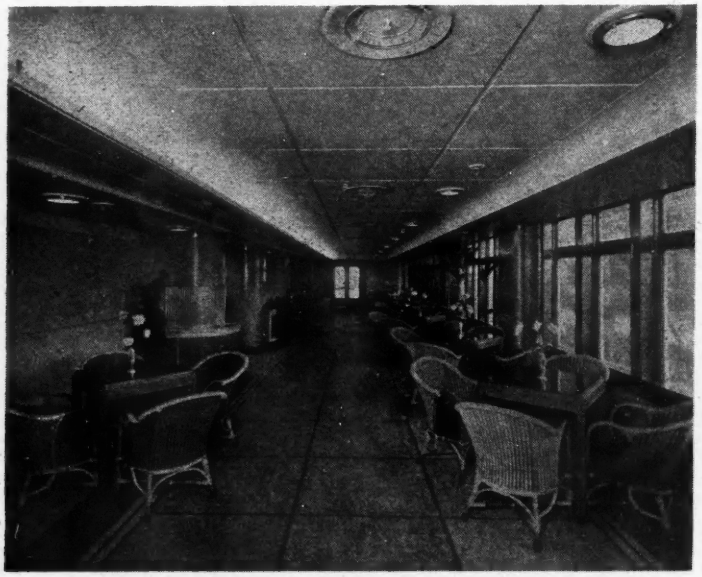
The walls are in plastic sheeting of a powder blue colour with silver metal beading, contrasting with the beige and peach of the ceiling, which is arranged with stepped planes to the upper panels over the concealed lighting troughs. A continuous carved frieze, showing a modern classical conception of Flora and Aphrodite, is the work of F. H. Coventry, M.S.M.P., M.S.I.A.

COCKTAIL BAR.—The wall space has been covered in grained leather of a light fawn colour, lined horizontally with deep narrow sinkings. The recess into which the service arrangements are built is lined with metal panels of a dull golden colour and having as decoration motifs in cast bronze applied to the face. The theme is built up from masks of Neptune and bacchantes, and the design is that of Chas. Cameron Baillie.

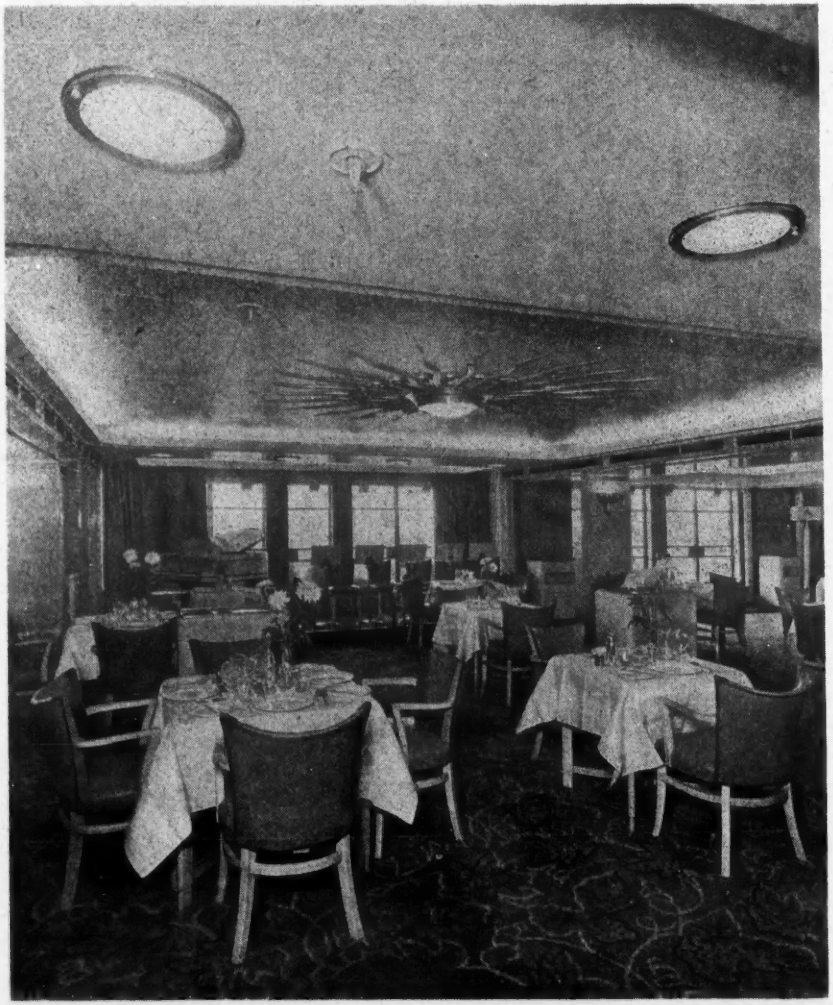
MAIN LOUNGE.—This room is 72 feet long with a high central roof, the sides of which are divided into bays by the vertical sides of pillar casings, which are returned to form a framing to the panelling of the clerestory veneered in pale golden-coloured mottled Canadian maple. Over the door screen the panelling is repeated, and on this a feature in lacquer and gesso decoration has been carried out by F. H. Coventry, and depicts forest trees in a broad foliage treatment.

Between the groups of windows each side a mirrored recess is formed between narrow pilasters of silver bronze, which support a canopied laylight panel, internally lit, and on golden spheres within this setting, green bronze castings are erected. The groups, showing decorative dolphins and sea horses, with figures representing the tumult and ever-changing aspect of the sea, are the work of Barney Seale, F.R.B.S., R.B.A., F.R.S.A., and Frederick Mancini, A.R.B.S., F.R.S.A.

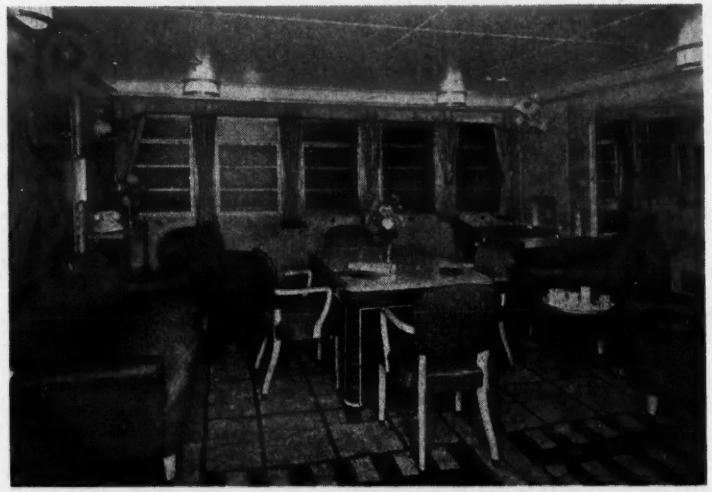
WRITING ROOM.—The corridor writing room is panelled in silver betule with surbase and writing desk fitments



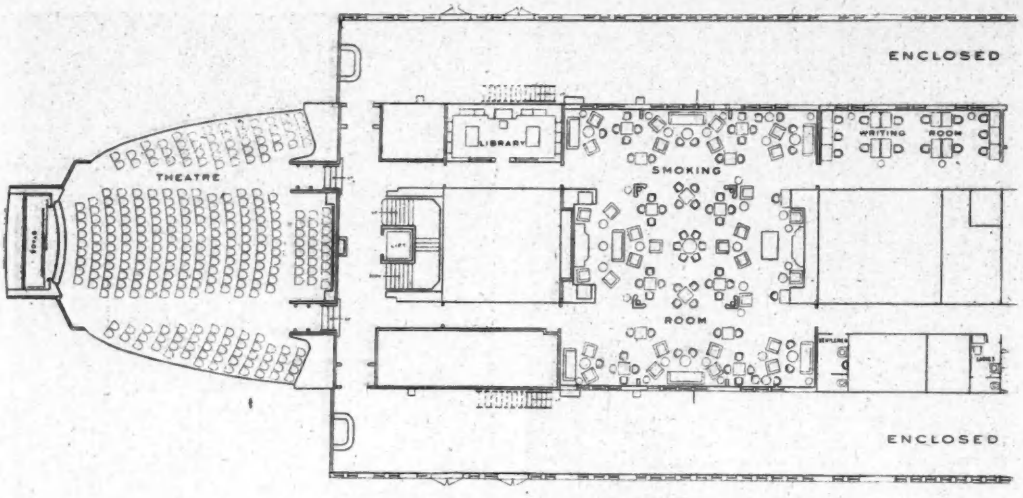
Garden Lounge, Promenade Deck (Cabin Class).



Verandah Café, Sports Deck (First-class).



Bedroom and sitting room suite (First-class).



Part plan of Promenade Deck (First-class).

in rich elm burr and feature panels of diagonally quilted leather of a pleasing grey green colour. Built-in and island-type writing desks are arranged to seat 14 passengers.

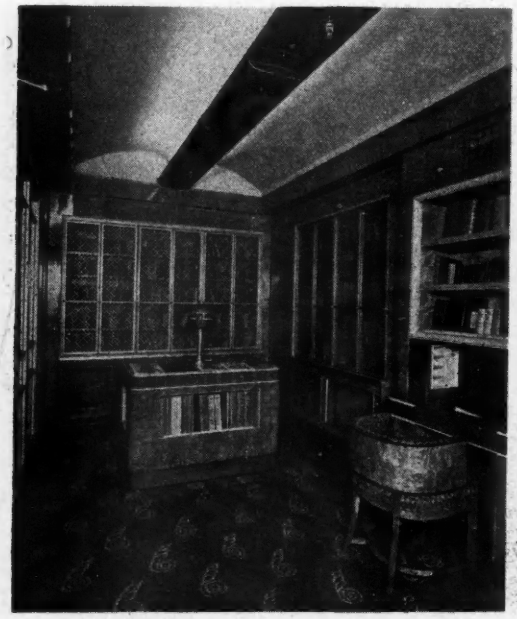
SMOKING ROOM.—The central roof between four triangular pillar casings is formed by a twelve-sided panelled margin and stepped up with moulded troughings to a carved centre piece, which incorporates a large light fitting. To each of the twelve marginal panels a carving symbolical of each month has been inset. These are designed in Anglo-Saxon tradition by E. R. Thompson, and with the remainder of the duodenary ceiling finished in dull gold. Enclosed decorative panels on the doors depict the history of navigation from the time of Prince Henry of Portugal until recent times, and have been designed by a Basque artist, José M. de Uzelai.

LIBRARY.—Here the panelling is carried out in Californian satinwood and rich elm burr with bandings to the lower bookcase doors. The main cases are fitted with gilt metal sliding and hinged grilles with shelving for 1,250 volumes.

THE THEATRE.—The wide proscenium of the theatre, which seats 285, is framed with deep moulded surround in white sycamore, fronted with a shallow stage riser and decorative jardiniere carried out in finely figured walnut burr. As a pediment to the frame, a running frieze of cast aluminium is moulded over the head of the surround and, supporting the flanks, recessed exit doors are set into moulded and coved niches, all carried out in walnut burr and sycamore. The curving wall surfaces sweeping outwards and forward are panelled half height in natural walnut, shaped to an ogee section, repeated in about three feet widths.

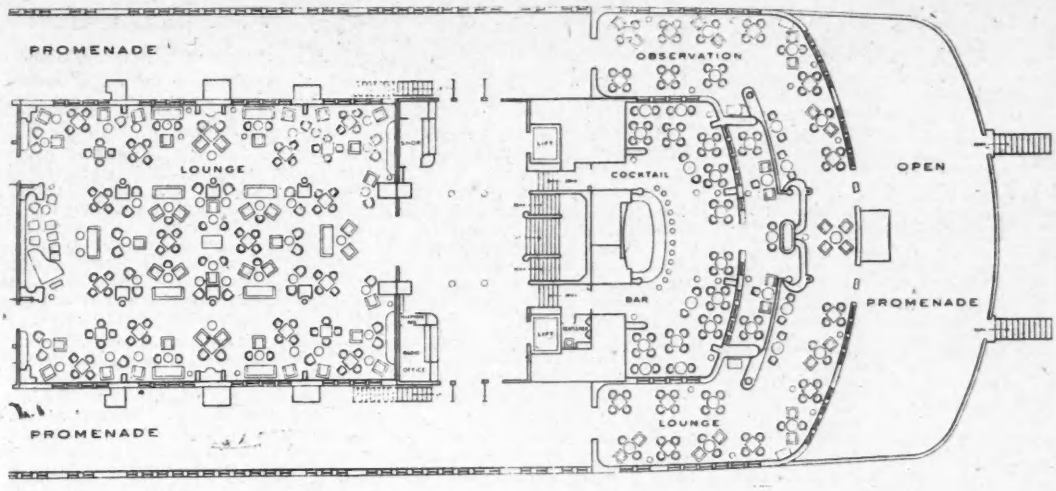
THE CABIN LOUNGE.—Flanking the screen and doors separating the promenade deck from the lounge, recesses are formed which have as decorative panels two marquetry motifs executed in rare woods and showing bouquets representing flowers peculiar to spring and autumn respectively, and designed by John Pringle. A low wide fireplace with decorative metal grille is bowfronted on plan, and, with a circular niche recess over forms the focal point in the lounge. From a bracket in front of the niche which is illuminated, a green bronze kneeling female figure is featured; the work is by Barney Seale and Frederick Mancini, who were also responsible for the casting.

GARDEN LOUNGES.—Two garden lounges are raised above the normal



Library, Promenade Deck (First-class).

Main Lounge, Promenade Deck (First-class).



Part Plan of Promenade Deck (First-class).

deck and have continuous glazed screens outboard. Two schemes have been used, one in a cream parchment shade, the other in pale marine blue, both in plastic sheeting. Concealed fluorescent tubes light the main ceiling, which is divided into a pattern of squared panels, and painted to suit each lounge.

VERANDAH CAFE.—The wall space of the verandah café is covered with light yellow textured material which also forms the background colour of two mural panels executed by Miss Margaret Blundell, N.R.D., who has chosen for her themes a mid-European country dance group to represent Summer, and a hunting scene in similar setting as its winter counterpart.

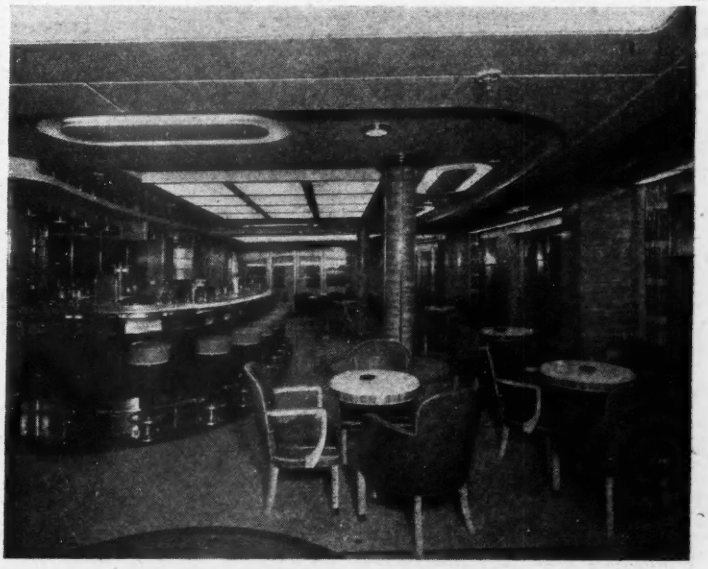
CABIN SMOKING ROOM AND COCKTAIL BAR.—The entrance doors from corridors port and starboard open on to the central square, and between these a feature panel of fluted bronze is built over a buffet sideboard in rich elm burr. Flanking panels are in figured olive ash, and opposite similar panelling encloses a fireplace, built of narrow brick and tile, with a cast bronze decorative grille to the fire recess. The bronze panel over is mounted with a casting in silver metal of low relief, showing Sir Walter Raleigh, the work of C. Cameron Baillie. At the back of the bar recesses are arranged, and the wide panel over is decorated with an amusing mural showing Regency figures in three-colour treatment by Nicolas Bentley.

BALMORAL RESTAURANT.—The raised central roof is formed by a series of shaped panels veneered in a finely figured quilted birch, pale gold in colour. To each side and centrally placed are two panels of ½-in. plate glass, which have been wheel-cut and embossed in acid with figures in the classical manner, representing "Day" and "Night." Both were designed by John Hutton.

At the after end of the dome, plain panelling of quilted birch is introduced and within a framing of semi-direct lighting is a centre-piece executed in "gesso" metal and colour, the work of F. H. Coventry. Panels in natural sycamore, carved in low relief and each divided into three compartments, represent scenes from rural and agricultural life, and have been carried out to the designs and under the supervision of Donald Gilbert, F.R.B.S., R.B.A.

PRIVATE DINING ROOMS.—Two private dining rooms are positioned side by side to starboard of the Balmoral Restaurant, and each have glazed screens to the large elliptical ports. The rooms are illuminated with semi-direct fluorescent tubes and fully air-conditioned. An inner wall is veneered in Nigerian peartree of a delicate pink with horizontal bandings of macassar ebony, and, placed over the built-in sideboard situated at one end, a low relief free figure motif is carved in lime-wood to the design of P. J. Bentham. To each end, the wall surfaces are covered in quilted textured leather in light fawn, with blue piping. The glazing is in tinted obscured plate glass, having wheel-cut and engraved devices based on marine subjects and all worked to the designs of J. Buckland Wright.

SANDRINGHAM RESTAURANT.—Two wide, flat arched openings enter from the hall on the restaurant deck to the vestibule of the Sandringham Restaurant. From the screened entrance, a veneered soffit of fine small figured ash is set up in jointed panels and carried up into the after end of the central dome. This dome is supported with wide veneered casings to each angle and central pillars, all in paldao, and these are faced with concave pilasters, veneered in eucalyptus burr. A wide tinted mirror panel is framed within fluted surrounds, and into this is inset a circular clock, over which the sun god drives his chariot and horses, all engraved and sand-blasted into the mirror and filled with gold leaf. The glasswork design is by John Hutton. The restaurant is an internal room and the sides at normal deck level are panelled out in alternate bays of colour and mirror surfaces, divided by gold metal pilasters, in which wall bracket lighting is incorporated.



Cocktail Bar, Promenade Deck (First-class).

P

R.I.B.A.

Final Examination

THE Final Examination was held in London, Edinburgh and Belfast, from December 1 to 10, 1948. The successful candidates are as follows:—

Whole Examination.—*K. G. Adams, Oxford; *K. H. M. Alaway, Taunton; C. G. Andrews, Belfast; D. H. Austin, London, N.W.1; *D. Bailey, Edgware; *H. S. Barnes, Heywood; *J. F. Bateman, Sidcup; E. L. Bent, Moray; D. Bestwick, Mansfield; *E. Blight, Plympton; J. A. H. Box, London, S.W.17; P. W. G. Bradford, Bristol; *J. G. Bramley, Preston; F. B. C. Bravington, London, S.W.3; *R. E. Burstow, Bexhill-on-Sea; *K. M. Carver, Rayleigh; *J. E. Chipperfield, Luton; J. F. Clarke, Oxford; *P. A. Clarke, St. Leonards-on-Sea; *L. M. Cleverly, Portsmouth; *D. A. Cull, Bournemouth; *G. S. Cumming, Preston; *F. Dunnett, Ipswich; *Miss E. W. Elder, Surbiton; Miss J. M. Feaster, Hornsea; Miss M. A. Fleming, York; †V. W. R. Gardner, London, S.W.4; G. K. Gibson, Crossgar; *J. R. Glanfield, London, N.W.8; *D. Glen, Barking; G. F. Goatley, Shrewsbury; *A. G. Goddard, Oxford; *N. A. Goss, London, S.W.8; G. A. Grey, Bristol; C. P. Griggs, South Harrow; *T. B. Hayes, Plymouth; *M. E. Hayler, Worthing; *R. J. Hey, Oxford; *P. L. Higgs, Bristol; *E. E. Hollamby, London, W.6; J. B. Hubble, London, W.1; *J. R. H. Hudson, Cheam; G. M. Hughes, Enfield; N. K. Jarvis Morden; D. B. Johnson, Ilford (Distinction in Thesis); A. J. Kench, Preston; S. Kershaw, Oldham.

*B. H. Lingard, Cheadle Hulme; J. McCormick, Glasgow; S. V. W. McCready, Hillsborough, Co. Down; *A. G. McCulloch, London, S.W.2; *H. V. Maddox, Guildford; Miss H. Martin, London, N.W.1; *B. V. Pattenden, London, S.W.1; *J. S. Peake, Berkhampsted; W. D. Proctor, Bristol; I. M. Purdy, Leicester; J. H. Rendle, Taunton; *B. A. W. Savage, Bristol; *L. T. Slattery, London, W.C.1; *W. K. Smith, Oxford; Miss R. Sniders, London, W.14; E. C. Sweetman, London, S.W.10; D. Tavill, Prestwich; D. A. Thompson, Shaw; *G. E. Thorne, London, W.8; *L. W. Trindall, Cheltenham; Mrs. E. Twist, Brooklands; G. R. Vaughan-Ellis, London, S.W.6; J. V. J. Vivian, Bedford (Distinction in Thesis); *J. E. Wadsworth, Manchester; Miss B. Walker, Weybridge; A. J. A. Wallwork, Bowden Vale; Ivor Warner, Seven Kings (Distinction in Thesis); G. A. Waters, Tonbridge; *C. G. Welsh, Glasgow; *C. W. H. Wright, Folkestone; A. Yates, Preston.

Part I only.—R. E. Carlick, Maidstone; G. B. Carter, Blackpool; K. Cooper, Liverpool; R. Edwards, Sandown; M. I. Hanasz, Sheffield; W. K. Henneberg, London, S.W.1; G. L. Hothersall, London, S.W.20; H. G. Marsh, Wembley; D. F. Oakley, Guildford; M. W. Poray-Swinarski, London, S.W.15; J. F. Sheldon, Twickenham; S. F. Smith, London, N.W.2; R. G. Sperry, Chelmsford; D. R. Vale, Romford; T. Vinter, Middlesbrough; W. A. Wondrausch, London, S.W.5.

* Subject to approval of Thesis.

† Subject to approval of Thesis and remaining Testimonies of Study.

Special Final Examination

The Special Final Examination was held in London, Edinburgh and Belfast from December 1 to 10, 1948. The successful candidates are as follows :—

Whole Examination.—H. Alcock, Bedford; W Alexander, Huddersfield; P. J. Arnold, Lowestoft; E. J. Backhouse, London, N.22; R. Badger, Stratford-upon-Avon; A. J. Barker, York; A. Bashforth, Shrewsbury; L. H. G. Belam, Croydon; H. E. Bell, Felixstowe; H. S. T. Best, London, S.E.19; D. H. Bick, Birmingham; D. J. Braine, Solihull; R. R. Burton, Hale; S. B. Cathcart, Brighton; H. S. Cattermoul, Stanmore; D. G. Collins, Nottingham; J. W. Crisp, King's Lynn; C. E. Davies, Durham; A. H. Davis, Stroud; F. H. Elder, London, S.E.12; R. E. W. Fer, London, N.4; H. C. Field, Harrow Weald; M. J. Garner, Swindon; O. Garry, London, N.W.6; G. R. Gay, Gt. Yarmouth; J. Granger-Taylor, London, W.C.1; B. W. Green, Exeter; C. T. G. Henry, Belfast; H. F. Hepworth, Aldershot; H. W. Higginbotham, Newport, Mon.; J. C. Hill, Dundonald; R. J. Holt, Glasgow; D. R. Howell, Southampton; W. H. Irwin, Belfast; P. S. Key, Purley; L. Y. M. Khachadourian, London, S.W.6; T. E. J. King, St. Leonards-on-Sea; G. T. Lackie, Craigie; E. G. Long, Bournemouth; W. MacDonald, Glasgow; H. M. McMordie, Dunmurry; P. L. McSweeney, Cork; P. W. Manning, London, S.W.16; W. B. Maxwell, Belfast; I. E. Morris, Northampton; D. E. V. North, Newbury.

J. M. O'Dwyer, Dublin; H. Parrish, London, S.E.13; J. Penson, Worcester; E. E. J. Phillipson, Larne Harbour; G. R. Pittman, London, S.W.11; J. Radford, Budleigh Salterton; W. G. Raiker, Thorpe Bay; A. J. Richmond, Keighley; J. S. Rigler, Reading; W. H. L. D. Robbins, London, N.W.3; E. J. Robinson, Northwood; K. L. Robson, Derby; H. M. Roid, Glasgow; A. J. Rowsell, Aldershot; R. J. Roycroft, Belfast; C. S. Russell, Coventry; D. W. Sharpe, Roade; D. G. Smith, London, W.3; J. L. F. Smith, Eastbourne; B. A. Sunavala, London, W.9; R. W. Sutton, Norwich; E. F. Sweetapple, Sidmouth; H. Taylor, Edinburgh; D. E. Twohig, Sutton Coldfield; W. J. Viner, Lewes; H. Wilcox, Walsall; R. H. Williams, Cardiff; F. W. Wilson, Orpington.

Part I only.—J. H. Beevis, Maidenhead; D. G. Cullum, Bexleyheath; H. L. Davies, Cardiff, H. H. A. Gallagher, Biggin Hill; R. A. Hopkins Greenford; R. A. Keatley, Wallington; R. M. McAfee, Belfast; A. E. L. Mallett, Stanmore; H. Oldham, Harrow; C. R. V. Tandy, Epsom Downs.

Exemption from Final Examination

The examination in professional practice for students of schools of architecture recognised for exemption from the R.I.B.A. Final Examination was held in London and Edinburgh on December 7 and 10, 1948. The successful candidates are as follows :—

W. A. Bell, Leeds; H. G. Evans, Halifax; P. O. Forsyth, Galston; G. D. Gould, Newton Abbot; H. N. T. Johnston, Glasgow; A. A. Lees, Falkirk; R. H. B. Lowe, Troon; J. A. D. Mair, Glasgow; A. Moscardini, Prestwick; F. L. Prichard, Liverpool; A. Raine, Sheffield; D. B. Russell, Alloa; J. R. S. Young, Glasgow; R. H. Young, Glasgow.

Town Planning Diploma

At the examination held in July, 1948, the following were successful and have been awarded the R.I.B.A. Diploma in Town Planning:—

K. Dodds (A.), Newcastle-upon-Tyne; J. P. Jackson (A.), Chester.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

A.B.S. Christmas Appeal.

TO THE EDITOR OF *The Builder.*

SIR,—I would like to thank you for so kindly giving space in your newspaper to my Christmas Appeal on behalf of the Architects' Benevolent Society, and thus bringing the Society's needs to the notice of a great number of architects, without involving heavy postage costs to the Society. Up to date, 1,112 replies have been received, bringing in £864 8s. 4d., which is a very useful addition to our funds for the relief of distress in the architectural profession. I am most grateful to all who have thus made it possible for us to continue our work.

No doubt there are many who intended to contribute, but who forgot to do so in the end of the year rush. I would like to remind them that the fund is still open.

MICHAEL WATERHOUSE,
President.

Architects' Benevolent Society,
66, Portland-place, W.1.

Architects and House Agency.

TO THE EDITOR OF *The Builder.*

SIR,—While every *bona fide* architect must share the views of your correspondent, Mr. W. McDonald (*The Builder*, January 21), that the action of the Architects Registration Council of the United Kingdom, in giving notice of determining the right of architects to practise as house agents is wise, it would be wrong to suggest that there must be inherently anything improper about the practice of house agency. It is merely that auctioneering and house agency, while, no doubt, honourable professions, are inconsistent with the practice of architecture.

The writer would further point out that, as far as he is aware, the scale of professional charges published by the R.I.B.A. includes a section which is reprinted from the Royal Institution of Chartered Surveyors' Scales, giving the proper scale for the sales of freehold and leasehold property. It would be interesting to know whether the ban on house agency is to prohibit the occasional sale of landed property negotiated privately by an architect.

B. A. P. WINTON-LEWIS.
29, Manchester-street, W.1.

IN PARLIAMENT

Houses of Historic Interest

COMPLAINTS of the Government's neglect of their responsibilities for preservation of houses of historic and architectural interest was made by MR. KEELING. He declared that, in spite of destruction by the enemy without and the far greater destruction by the vandals within, this country was still enormously rich in fine architecture, ranging from such splendid mansions as Wentworth Woodhouse—now isolated in the desert of open-cast coal workings—to the lovely rows of cottages in such places as West Wycombe, Lacock and Bibury, still happily intact.

The Town and Country Planning Acts cast the primary responsibility for preservation on the local planning authorities, but the Minister also had a heavy responsibility in planning schemes, in hearing appeals from local authorities, and in carrying out a specific duty to compile all over the country lists of buildings of special architectural and historic interest. The lists had the double effect of guiding local authorities in their planning schemes, and imposing restrictions on the owners; they would be the first catalogue of fine English architecture ever compiled and they ought to be of immense value in preserving and educating. He charged the Minister with neglecting his duties in those three respects. Three and a half years ago the Minister appointed an advisory committee but he never consulted them before ordering the mutilation of Cranmer Hall, Fakenham, against the advice of Norfolk County Council, nor about Kensington-square and the Bankside Power Station. The result was that the committee felt neglected, frustrated, and out in the cold.

With regard to appeals, the Minister should only reverse an appeal where national interests were involved. He had, in fact, shown himself quite irresponsible in exercising his jurisdiction. If we wanted good architecture in future we must create a public sensitive to architectural surroundings.

MR. KING, Parliamentary Secretary to the Ministry of Town and Country Planning, who replied, said that notable houses had recently come into the possession or control of the Ministry of Works, or were on lease from the National Trust. These included Chiswick House, Apsley House, Ham House and Osterley House. They were admirable examples of private generosity, but individual efforts were insufficient.

The Government were anxious to proceed further and establish an accepted policy. The Chancellor of the Exchequer had recently appointed a Committee under the chairmanship of Sir Ernest Gowers with terms of reference " to consider and report what general arrangements should be made by the Government for the preservation, maintenance, and use of homes of outstanding historic or architectural interest which might not otherwise be preserved."

The attack on the appellate capacity of the Government was singularly thin. The number of appeals which had come before the Minister was only two, and one was still *sub judice*. The remaining appeal was the extent of Mr. Keeling's case. In this case, Cranmer Hall, Fakenham, the Georgian Group were the only objectors. The Secretary, in a letter referring to this house, had said: " It cannot in any way be considered as an outstanding piece of eighteenth-century architecture."

In regard to the delay in the preparation of lists, out of 1,500 administrative

areas in the country, 575 had been completely surveyed and 184 provisional lists were now ready to go out. With the vast volume of administration under the Act, that record was a matter for pride. The compilation of these lists was a running process, but they would give all possible publicity to them.

Housing Progress.

MR. H. L. AUSTIN asked the Minister of Health if he would state the reasons for the decline recently in permanent house building; and what was the average projected figure per month for the ensuing year.

MR. BEVAN said the number of new permanent houses completed in the 12 months ended November 30, 1948, was 205,274 as compared with 121,082 for the 12 months ended November 30, 1947, and the fluctuations month by month had been no more than was to be expected in a programme of this magnitude. The programme had now reached a stage where it could be judged on its achievements better than on forecasts.

MR. FLEMING: May we take it that the figures given by the Minister refer to new houses and would not reflect the decline in private enterprise housing?

MR. BEVAN: The figure refers to new houses alone and not any other form of accommodation. In regard to the second part of the supplementary question, that has been answered so frequently that I should have thought Conservative Members were tired of the answer.

The Tower Pier.

In the House of Lords, LORD BLACKFORD asked whether the Government had any statement to make about the proposed extension to the Tower Pier.

LORD MORRISON, Parliamentary Secretary to the Ministry of Works, said that there had been during the past year an increasing demand for accommodation at the Tower Pier, partly due to the establishment of the water bus service. The Port of London authority had accordingly had to consider the best method of meeting this demand. One proposal was to extend the pier downstream, but at the moment they were making a detailed examination of the possibility of extending the pier upstream, thus avoiding any possible interference with the Tower of London and the children's beach.

Granite Imports.

MR. DOUGLAS MARSHALL asked the President of the Board of Trade how much granite and marble, respectively, was imported by the United Kingdom in 1948 and 1949; what was the estimated import for 1949; how many British associations would take part in importing granite during 1949; and what was the total production of granite in England, Scotland, Wales and Cornwall in 1948.

MR. HAROLD WILSON said that 7,000 tons of granite, value £53,000, and 15,713 tons of marble, value £404,000, were imported into the United Kingdom in 1948. No figures were yet available for actual imports in 1949 to date. Imports had been permitted only at the request of the foreign countries concerned, and as part of satisfactory Trade Agreements with them; the hon. Member would not expect him to forecast what might be the outcome of 1949 trade negotiations with the countries concerned, since these were not yet completed. Import licences would be issued to individual importers and there would be no question of importing through particular trade associations. Total estimated production for England, Scotland and Wales in 1948 was approximately 4,100,000 tons. Of this Cornish production was approximately 32,000 tons.

BUILDING WAGES

Regradings: Regional Variation Amendments

THE National Joint Council for the Building Industry at its statutory meeting on January 19 approved regradings for the following districts to take effect on and from February 1:—

EASTERN COUNTIES REGION.—(From A2 to A) Shelford, Stapleford. (From A3 to A2), Shefford, Watton-at-Stone.

MIDLAND REGION.—(From A1 to A), Irthlingborough U.D. (From A2 to A1), East Retford R.D. (Part, Midland portion). (From A3 to A2), Mablethorpe and Sutton-on-Sea U.D., Ashby-de-la-Zouch R.D. (Part—Appleby-Magna, Chilcote, Snarestone, Stretton-en-le-Field), Atcham R.D. (Part—excluding portion graded A1 and Buildwas), Caister R.D. (Midland part), Drayton R.D. (Midland part—Cheswardine, Childs Ercall, Hinstock, Hodnet, Stoke-upon-Tern), Ellesmere R.D. (Midland part—Baschurch, Great Ness, Little Ness, Myddle), Horncastle U.D., Market Bosworth R.D., Market Rasen U.D., Martley R.D. (Part), Oswestry (Midland part), Sleaford U.D., Wem R.D. (Midland part), Wenlock M.B. (Part—Much Wenlock Parish), Woodhall Spa U.D.

The Council also approved the following Variation Amendments, to apply to the Regions concerned:—

LONDON REGION.

(i) Delete whole paragraph 5 of London Working Rule 2 and substitute the following:—

(5) "When exceptional circumstances preclude the agreed working hours being adhered to on any contract, the employer shall be at liberty to vary the Working Hours without payment of overtime rates, provided that the total regulation hours for the day be not exceeded and that joint approval be given in writing by the secretaries of the L.M.B.A. and the N.F.B.T.O. (L.R.C.)"

(ii) Amend existing London Variation (London Working Rule 3A(b)) to read as follows:—

*"Men in trenches *or in excavations not exceeding* 100 *feet super on plan, when working* at a depth of 20 feet or more below the top of the trench or excavation concerned . . . . 1d."

(iii) London Working Rule 3A(e) (ii)—paragraph on "Plumbers working on old lead soil waste pipes, etc." In line 1 and 2 delete the word "lead." The opening words of this paragraph to be in the following terms:—

"Plumbers working on old soil or waste pipes, etc."

(iv) London Working Rule 3B(a) (i)—Delete all words after "Marble" (viz.: "not to include wallers").

(v) London Working Rule 7 (Payment of Wages). Amend to read:—

"Payment of wages shall commence at leaving-off time or as soon thereafter as practicable, on Thursday, and be paid on the job, but if otherwise arranged, walking time at the rate of three miles per hour shall be allowed to get to the pay-table.

"Night gangs to be paid at leaving-off time on Friday morning."

SOUTH WESTERN REGION.

National Working Rule 2 (Working Hours)—Alteration to apply to the area of jurisdiction of the Employers' North Devon Divisional Association:—

"That the weekly hours outside the winter period be changed from 46½ to 44 in the North Devon Division (except South Molton)," subject to the supply by the Regional Joint Committee of a clear definition of the territory jointly agreed, for this purpose, to constitute "North Devon Division."

That the following additions to the schedule of National Working Rule 3 be applied to the South Western Region:—

N.W. Rule 3B. "Bricklayers and Masons employed whole time on the fixing of worked or dressed stone (not to include wallers), 1d."

"Bricklayers and Masons employed whole-time on the fixing of artificial stone, 1d." (Note: It is understood that this covers work when fixed stone to stone and is not to include cills or heads.)

N.W. Rule 3C. "Bricklayers and Masons when fixing worked or dressed stone (not to include wallers), 1d.

"Bricklayers and Masons when fixing artificial stone, 1d." (Note: It is understood that this covers work when fixed stone to stone and is not to include cills or heads.)

With the object of spreading the work of the Council more evenly throughout the Regions over the period of its administrative year, the Council has amended the dates for the submission of Constitutional and Variation Amendment Notices, which will be dealt with at four meetings of the Council in lieu of two meetings as hithertofore.

*The words in italics are an addition to the existing Rule.

W.D. COMMISSION

The Year's Work

THE volume of work dealt with by the War Damage Commission continued on a high level throughout 1948.

Altogether over half a million payments were made, totalling nearly £149,000,000, and bringing the Commission's total payments to £750,000,000 represented by 3,127,000 separate cheques.

Claims paid for "cost of works" repairs during the year numbered 403,000 and, in addition, there were 77,000 payments on account and instalment payments; the total paid as "cost of works," was over £82,000,000, of which £72,000,000 was paid to private owners and just over £10,000,000 to local and other public authorities. More than three-quarters of this figure was for repair and rebuilding of houses. Other principal items were: factories £6,500,000; commercial buildings £4,250,000; shops £1,750,000; churches £1,000,000.

Value payments were made during the year for 34,000 "total loss" properties, the amount paid being £66,500,000, of which £27,000,000 related to houses.

Value payments where more than one person holds an ownership interest in a property can only be paid when the various owners have agreed how the payment is to be shared between them. For one reason or another it appears that the sharing of money in these cases is a matter of some difficulty and there are over 11,000 cases where the owners have not yet been able to reach agreement, although in the great majority of these cases the amount of the payment was made known to them many months ago.

The number of cases where owners submit specifications of proposed repairs to the Commission for agreement before beginning the work has risen very greatly from 7,500 in 1945, to 59,000 in 1948.

The National Federation of Building Trades Employers

ANNUAL DINNER AND DANCE

NEARLY 600 members and their guests attended the annual dinner and dance of the National Federation of Building Trades Employers, held at the Dorchester Hotel, on January 26. The President, MR. F. M. SLEEMAN, occupied the chair.

Responding to the toast of "H.M. Government and Ministers," proposed by the President, THE RT. HON. CHARLES KEY (Minister of Works) referred to the happy relationship existing between members of the Federation and his Ministry as something which gave him not only great pleasure, but considerable cause for pride. "I have, through a long career in public life, had the opportunity to work in close co-operation with a very large number of business and professional organisations," said the Minister, "but I have found none who have been more wholeheartedly co-operative than the National Federation. Many of your leading members are giving public service of a high order." The personal relations between the Ministry of Works and the Federation had always been happy, whatever differences of opinion there might have been, and as a result of the hard work and co-operation of all sides of the industry we could look back with satisfaction upon the year just past as one of solid achievement. There had been a considerable improvement in the rate of completion of work; good progress had been made in the production of building materials, which were now adequate to meet demand (except for timber and steel, which would continue to be limiting factors for some time); and licence limits have been raised. "It will be encouraging to us all," added the Minister, "if this year it is found possible to carry the process further."

The toast of "The Guests," proposed by MR. NORMAN LONGLEY (President-Elect) in an amusing speech, was responded to by Mr. Michael Waterhouse, P.R.I.B.A., and Sir John Stephenson, President, N.F.B.T.O.

In his response MR. WATERHOUSE said that though it was a singular honour to be chosen to reply both for architects and quantity surveyors, it was in some ways fitting, as not only did they work hand-in-hand, but were united by the fact that, without the builder to convert into material the fancies of the one and the figures of the other, both professions would be impotent, indigent, expressionless and without means of support. "I sometimes wonder if our clients realise exactly how much they owe to the building fraternity, without whom they would still be sheltering and shivering in caves or primitive mud-huts or trees. It cannot be gainsaid that building and the building industry are not only the core of our own and many other civilisations, but are the very root of our economic life. I believe—indeed, I know—that one of the first and most essential steps towards the restoration of national prosperity and its establishment on a sound economic basis is an active and unfettered building industry." It might be hoped that the outcome of the Working Party's report would be something really constructive upon which the industry might build.

At the close of the speeches the floor was cleared for dancing. An excellent cabaret entertainment was given and a cheerful party broke up at about 2 a.m.

THE ANNUAL MEETING

Mr. Sleeman on Prospects for the Building Industry

MR. F. M. SLEEMAN presided at the annual general meeting of the National Federation of Building Trades Employers in London on January 27.

Some personalities at the National Federation Dinner at the Dorchester, on January 26, as seen by *MEL*.

Members attended from all parts of the country, and every county in England and Wales was represented. Mr. G. L. Orchard, President, and Mr. D. McCowan Hill, Secretary, represented the Scottish Building Trades Federation, and M. Pierre Dumont, Vice-President of the Federation Nationale Française du Bâtiment, the French Federation.

The Presidential Address.

In his address to the meeting, MR. F. M. SLEEMAN said that he took a fairly optimistic view of the prospects, both from the short-term and from the long-term points of view. The long-term view for the building industry was obviously good; there was work for a generation ahead. The short-term view was more complicated. It depended less on their own efforts as builders than on an improvement in the general economic position of Great Britain and the world. At present we were enjoying Marshall Aid, which to a large extent concealed our true economic position. We hoped, by a process of hard work and austerity, to be able to stand on our own feet by 1952. And if every industry and every class of the community, builders among their number, did their duty, we should be solvent by 1952.

Mr. Sleeman continued: "What of the immediate future? This year the housing problem remains one of the most urgent of the tasks we shall be called on to tackle. And while we shall not be allowed to build—economic conditions will inevitably prevent that—more houses this year than we did in 1948, I believe, and I have reasons for my belief, that we shall build them more quickly and more cheaply.

"All the signs are that as builders we shall have fewer forms to fill up and less outside interference during 1949 than during 1948. We shall therefore be able to spend more time in getting on with the actual work and in improving our efficiency. Competition, the biggest spur to efficiency, is getting back to its pre-war intensity throughout the building industry. The results of research are being increasingly made known and applied. Fuller use is being made of mechanical aids. Welfare conditions on the sites are being improved. Systems of incentives are on the increase. The Chancellor of the Exchequer is continually urging industry to speed up production and cut down its costs, and Mr. Aneurin Bevan has said that his slogan for 1949 is "Up with the houses and down with the costs." We can agree wholeheartedly to endorse that slogan, for supplies of materials will flow more smoothly this year, and all these other factors are having their effect."

In a reference to the Working Party the President said that during the past six months the Federation had been collecting and preparing evidence. Now a small committee was engaged in putting the finishing touches to it, and in the week commencing February 7 the Council of the National Federation would be invited to approve it for submission to the Working Party.

"I was against the Working Party at first," said Mr. Sleeman. "Now I think it might be a good thing. For one thing, it will stop some of the foolish criticism which so often passes for wisdom among the uninitiated. For another, it will show where the real weaknesses of the industry lie. If its findings have the effect, and I hope they will, of showing how all firms can bring their methods and practice up to the standard of the best, it will have gone a long way towards bringing about that maximum production which is so necessary to-day for industrial recovery."

Incentives had become established practice among many of their members and, there was no doubt, had helped materially both in speeding up work and in reducing costs. How many firms were operating incentive schemes he did not know, but they would have to find out before long. But it was a growing number, and all the evidence went to show that the teething troubles which always beset new works were steadily being overcome. Many of the smaller firms, of which the National Federation was so largely composed, had found difficulty in introducing incentive schemes. To help, the Federation very shortly hoped to publish at least one model scheme which they could adapt to their needs as well as several actual schemes which were now being successfully operated.

In conclusion, Mr. Sleeman said: "I end on a note of warning. Some of us are still inclined to think long thoughts of the good old days when we were free to build as we liked, and we still cherish hopes that some day we may go back to what we should like to think was 'normal.' There is never any going back to yesterday: there is only going forward to to-morrow. It is up to us to meet the problems of to-morrow with the same courage with which we meet the problems of to-day and our predecessors met the problems of yesterday."

Office Bearers for 1949.

The following office bearers were elected for 1949:—

MR. NORMAN LONGLEY (Southern Counties Federation), President.

MR. R. O. LLOYD, O.B.E. (Liverpool Federation), Senior Vice-President.

MR. W. HORSFALL (Yorkshire Federation), COUNCILLOR STEPHEN HUDSON (Northern Counties Federation) and MAJOR J. IAN ROBERTSON (Midland Federation), Junior Vice-Presidents.

MR. G. W. BUCHANAN, C.B.E., Hon. Treasurer.

THE NATIONAL FEDERATION COAT OF ARMS

THE National Federation of Building Trades Employers has received a grant of arms from the College of Arms. It was on view for the first time at the Federation's dinner last week.

Heraldry, while capable of modern application, is essentially a traditional art. Its emblems are accordingly displayed on the objects with which they were chiefly associated at the time of

its inception in the Middle Ages—the Knightly shield and helm. The emblems on the shield constitute the *arms*, and those on the helm form the *crest*. The complete design is the armorial bearings.

The Arms of the National Federation consist of the head of an arch, typifying the essential building work of the industry. Prominent in this construction is the keystone at the summit of the arch, which holds the structure together. Here the keystone in particular symbolises the employer, locking the work of his operatives, and the National Federation locking together the individual employers.

The crest consists of a castle rising from a wreath of oak, representing stone and timber, the fundamental materials of building; while the oak, as a British emblem, has also a national significance. The helm is that of an esquire, this being the helm appropriate to a corporate body. From it flows the *mantling*, a decorative cloak which the armoured man wore to protect himself from the sun's rays.

THE NEW PRESIDENT

MR. NORMAN LONGLEY is Chairman of his family firm, James Longley and Co., Ltd., of Crawley, Sussex, which was founded by his grandfather in 1860. Mr. Longley is a practical builder in every sense of the word, having spent two years at the joiner's bench after leaving Clifton College, where he was educated, and ever since being engaged in building. From 1925 he had direct responsibility in both tendering and contract management for a large section of the work of the firm, and in 1931 he was elected its Chairman.

Longleys of Crawley have many fine buildings to their credit, among them Christ's Hospital (the Bluecoat School) at Horsham; Graylingwell Mental Hospital, Chichester; the King Edward VII Sanatorium at Midhurst; and St. Dunstan's Convalescent Home at Ovingdean, Brighton. At present, among a number of contracts in hand, they have several for the Royal Aircraft Establishment at Farnborough and two for large schools for the East Sussex County Council.

The firm, well known for its joinery work, made and installed the choir stalls at Buckfast Abbey in South Devon, and is at present reconstructing the Archbishop Tenison Memorial Throne from Canterbury Cathedral.

Mr. Longley was President of the Southern Counties in 1942, and was elected Vice-President of the National Federation in 1947, and senior Vice-President last year. He was one of the five National Federation representatives responsible for negotiating the R.O.D.1 contract with the War Damage Commission. He represented the National Federation at the International Labour Office Conference in Brussels some 18 months ago. He has also played his part in local government affairs. He was on the Crawley Parish Council for 15 years, was on the Horsham Rural District Council from 1933 to 1948, and was Chairman of the Housing Committee from 1945 to 1948. He is now a member of the West Sussex County Council. He is also Honorary Secretary of the Crawley and District Community Association. Mr. Longley's elder son will shortly be joining the firm, in which he will represent the fourth generation of the family.

BUILDING IN 1948

National Federation's Report

THE 71st annual report for 1948 of the National Federation of Building Trades Employers reviews the trend of events during the past year and expresses a hopeful view for 1949. Following are extracts:—

The situation facing the building industry twelve months ago was a prospect of considerably reduced activity coupled with a corresponding reduction in its labour force and in its supplies of both imported and home-produced materials. It was thus necessary for the Federation to convince the authorities that the building industry was not simply a social service, by which the provision of houses might be expanded or contracted in accordance with the state of the Exchequer, but that it had also an essential part to play in enabling exporting industries to increase their productivity in order to reach their export targets. The Federation's representatives on the Minister of Works' National Consultative Council, with the full support of the representatives of all other sections of the industry, took immediate steps to place before the Minister the industry's own assessment of the contribution it could, and should, be called upon to make towards national recovery. It was pointed out further that it is not possible in practice alternately to expand and then to contract the industry, by the imposition of rigid outside controls, without destroying its balance and seriously endangering its future. The case was sympathetically received by the Minister of Works and had some influence in high quarters.

The effect of these representations have not only been shown in the practical steps which have been taken by the Government during 1948. They appear also in a comparison of the December, 1947, White Paper on Capital Investment with the December, 1948, White Paper on European Co-operation. This latter document, which outlines the policies Great Britain designs to follow in order "to achieve and maintain a satisfactory level of economic activity without extraordinary outside assistance" by 1952-1953, contains encouragement for the building industry. It is recognised, for example, that "increased productivity partly depends on the maintenance and improvement of capital equipment, both building and machinery," that one of the effective limiting factors in relation to capital investment is "the limits of the productive capacities of the building and engineering industries," and that a measure of priority must be given to "the provision of essential services, such as housing, and of basic social services, such as water, health services and education (particularly on the technical side), which contribute to the nation's economic strength." The White Paper recognises further that "controls over production, however exercised, undoubtedly restrain initiative and enterprise. They are being simplified wherever possible. They are a means to an end, not ends in themselves, and will be abolished as soon as their advantages appear to be outweighed by their disadvantages."

A factor which has no doubt contributed towards the maintenance of building activity on a reasonably level keel during the year 1948 is the realisation by the Government of the difficulty of putting into practical effect the theoretical decisions of planners—for instance, that activity must be reduced in specified directions by a prescribed percentage. The result is that the building industry finds itself in a considerably more favourable position than might have been expected; if anything, it is more active and certainly less rigidly controlled than it was twelve months ago. It is fitting that recognition should be given to the parts played by the Minister of Health, the Minister of Works and the staff of their respective departments in ensuring that the representations made by the industry receive consideration. The value of the work of the National Consultative Council and of the Building and Civil Engineering Joint Committee, on both of which the Federation is strongly represented, has never been more evident than during the past year, when so much has depended upon decisions taken by the Central Planning Department of the Government.

Subject to basic factors, which necessarily govern all planning for the future, there are grounds for believing that the amount of work to be carried out by the building industry during the next two or three years will not be drastically reduced, and if, as has been suggested, the supply of materials becomes somewhat easier in 1949, there is a possibility of some slight increase.

Whatever increases are permitted are likely to meet the requirements of the major exporting industries, public utilities and road work. The housing programme in 1949 will, it seems, continue at much the same rate, and, to quote the White Paper, "the rate of house construction in the following three years will depend on the progress of economic recovery." Excluding ordinary maintenance of houses and miscellaneous small works, the total available investment resources of the country are intended to be distributed over the whole period in approximately the following proportions: Fuel and power, 15 per cent.; transport and communications, 18 per cent.; agriculture, 6 per cent.; industry, 33 per cent.; housing, 16 per cent.; social services (water, health, education, etc.), 7 per cent.; defence and public administration, 5 per cent.

With regard to incentives, the Report goes on to state that the Incentives Committee has considered a number of typical schemes with a view to assisting all members in the application of incentives to various types of work. The Committee has reached a fairly advanced stage in its work and it is hoped that it may be possible to issue some further information to the membership in the early part of 1949. The type of assistance which it hopes to give will cover both the principles that ought to govern the operation of any scheme and details and methods of operation. It is hoped also to give details of at least one model scheme and of several actual schemes already being successfully operated on various types of work.

Half-Yearly Meeting.

On the invitation of the Southern Counties Federation, presented by the President, Mr. Keith Martin, the National Federation of Building Trades Employers decided to hold its half-yearly meeting in Brighton on July 13 and 14, the Southern Counties being the region from which the 1949 President of the National Federation comes.

Association's "Green Book."

The "Green Book" of the Birmingham and Five Counties Architectural Association, recently published at 2s. 6d., describes the Association's programme of widening activities in the interests of the profession during the past year. It is obtainable from 8, Newhall-street.

THE GEOGRAPHERS' PLACE IN PLANNING

IT was once thought that urban planning could be successfully handled by architects and engineers alone. Now, however, it is generally realised that planning must be based on a knowledge of resources. What are the factors that the planner must take into consideration? Non-agricultural development must avoid the best land; microclimatology must be studied as must local relief, which affects wind direction; provision must be made for mineral working; and industrial location and employment must be considered together with rail access to large towns. These and many other features form the basis of planning. Consequently, the men who fulfill a major role in planning include geographers, geologists, economists, sociologists and statisticians. The work done by geographers and their colleagues in the Ministry of Town and Country Planning was shown in an exhibition held at the London School of Economics, Houghton-street, from December 31 to January 3. In addition to aerial photographs, maps, showing migration of population, mineral resources, industrial statistics and spheres of influence of the different towns of England and Wales were on view. A special section of this interesting exhibition explained the agricultural and building value of gravel-bearing land and demonstrated the physical nature of sand and gravel pits, their technical equipment, their effect on the land surface and methods of reinstatement.

CEMENT WORKS EXTENSION.

STRICT conditions have been imposed by the Minister of Town and Country Planning in giving permission to the British Portland Cement Manufacturers to extend the Hope Cement Works in Derbyshire. These conditions should ensure control of the emission of fumes and their dispersal by the erection of a 400-ft. chimney, the submission of detailed plans of building, the planting of trees to screen the works, and the creation of artificial lakes in places where clay has been excavated.

The Minister's decision follows a local inquiry which was held last April, when the question was raised whether further industrial expansion in an area famous for its beauty, and recommended by the Hobhouse committee as suitable for a national park, was desirable.

In the letter giving his decision, the Minister has agreed that there is an urgent national need for more cement, and that the Hope Works are well situated to supply the demands of nearby industrial areas. At the same time he has listed eight conditions whose fulfilment will reduce the defacement of the landscape.

The initiative shown by the company in engaging Mr. G. A. Jellicoe, P.I.L.A., F.R.I.B.A., M.T.P.I., to prepare comprehensive plans for progressively restoring the appearance of each quarrying site as it is worked out, is commented on by the Minister. His letter also suggests that the local planning authority should survey the area with the two-fold purpose of determining which clay lands should be reserved to satisfy long-term requirements and ensure the preservation of the beauty of the landscape.

Book Received.

COMPULSORY PURCHASE AND COMPENSATION. By R. D. Stewart-Brown. (London: Sweet and Maxwell, Ltd.) 6s. 6d.

Management in the Building Industry

Southern Counties' Report on Higher Education and Training

A REPORT on "Higher Education and Training for Management in the Building Industry," embodying a proposal for the formation of a Southern Counties Scholarship and Welfare Fund, has been prepared by a Sub-Committee of the Apprenticeship and Education Committee of the Southern Counties Federation of Building Trades Employers, and was formally received and adopted at the Federation's annual general meeting at the Dorchester Hotel, London, on January 21. The report, which is to be circulated to various educational authorities, provides that £800 per annum for five years be allocated to the Fund in such a manner as may be approved by the Federation's Council.

In the course of some introductory remarks the Sub-Committee state that whatever the achievements of the industry over the last 50 years it can lay no claim to having been abreast of the times in the matter of education. As a result the Sub-Committee commenced work without being able to turn to any scheme of training for administration that had been in operation and which might be capable of some improvement. The Sub-Committee devoted considerable attention to the preparation of a scheme which should be capable of being integrated with the technical education now available in the various colleges in the Southern Counties Region and in London.

It became necessary, therefore, adds the introduction to the report, to examine firstly the various positions in the building industry that call for first-class training; secondly, to determine the necessary educational standards essential to fill properly such positions; and thirdly, to devise some simple scheme whereby the industry shall benefit from such training in the earliest possible time consistent with sound preparation.

Following are extracts from the remainder of the report:—

Personnel.

The first duty, therefore, of the Sub-Committee was to list the positions in the administrative ranks of the industry which would come within such a training scheme. The following list of personnel is given in order of seniority, commencing with the employer, but the list will naturally vary somewhat according to the employing capacity of a particular firm.

BUILDER.—To control successfully the business of a general building contractor, the principal should possess a sound and tested knowledge of general building construction, quantity surveying, estimating, accountancy as applied to industry, costing, banking, external and internal organisation, the law of building contract, industrial economics; and, in addition, possess qualities of leadership and integrity. He can also be with benefit a student of architectural and building history.

BUILDER'S MANAGER.—The builder's manager must essentially possess a sound knowledge of building construction, a good working knowledge of quantity surveying and estimating, external and internal organisation, industrial law, with some knowledge of the law of building contract; and be endowed with administrative capacity and integrity.

ESTIMATOR AND SURVEYOR.—The estimator and surveyor must possess a sound knowledge of building construction, quantity surveying and estimating in all their details, the preparation of final accounts, alone or in conjunction with professional surveyors, and the preparation of specifications; and have sufficient knowledge of internal organisation, industrial law, and the law of building contract, that will enable him to associate himself fully with production, and tender advice to his principal upon any issues arising from the running of the contract and their relation to the contract documents. He should also have a working knowledge of the costing of contract and jobbing work that will enable him efficiently to relate cost to output.

PRODUCTION ASSISTANT.—Although the production assistant may not necessarily be required on the staff of a firm below an employment capacity of, say, 300 men, where such an assistant is desirable, he should, in addition to possessing a sound knowledge of general building construction, have the following qualifications: Be a practical draughtsman, have a knowledge of industrial conditions and the Working Rule Agreement, site experience, and be able efficiently to interpret architectural design and drawings, and coordinate such drawings with the site operations.

BUYER.—The buyer should have a knowledge of building construction and the materials used, and some knowledge of builders' quantities. Preferably he should have had some site experience—possibly as a time clerk—and, with advantage, have some knowledge of commercial economics. It is essential that he should have a sound knowledge of builders' book-keeping, together with costing systems, and a knowledge of the modern standards of the B.S.I. relating to plant and materials.

COST CLERKS, WAGES CLERKS AND BOOK-KEEPERS.—These grades differ materially from the preceding senior positions mentioned, as they do not require in the conduct of their daily duties to have skilled knowledge of building construction or surveying; but they could all with profit take a course in their early industrial life of commercial book-keeping and other related subjects.

PLANT ENGINEER.—The Sub-Committee do not consider it is essential for them to review the position of the plant engineer, as such a position normally only belongs to the staff of a firm engaging in constant employ a far greater number of men than the average employer who is a member of the Southern Counties Region.

CONTRACT MANAGER.—Many firms employing 200 men or more employ one or more contract managers. Where such posts exist, their occupants should possess qualifications similar to, and as near as possible as high as, the builder's manager, although it is realised they would possibly not possess much knowledge of the law of building contract. The contract manager should preferably be craft-trained as a carpenter and joiner, bricklayer or mason.

GENERAL FOREMAN.—The general foreman employed upon the site should be craft-trained by apprenticeship, preferably a carpenter and joiner, bricklayer or mason, and in the absence of some special certificate or diploma applicable to training as a general foreman, he should possess at least a second-class final certificate of the City and Guilds of London Institute in his own craft, together with either the National Ordinary or Higher Certificate in Building. He should have the qualities of foresight, diplomacy and leadership. (*For training see the Report of the* ad hoc *Committee set up by the National Federation of Building Trades Employers and the Foremen's Associations.*)

Educational Standards.

It can reasonably be stated that until the single profession of architect/builder was severed about 150 years ago, resulting in two occupations instead of one, those engaged in the pursuit of architecture and building possessed a general education and a social dignity comparable with other professions. Unfortunately, the division led to a deterioration in the standard of education of the builder, whereas that of the architect took an upward trend.

This deterioration of the status of the builder continued throughout the 19th century, and to some extent in the early years of the 20th century, with the unhappy result that, broadly speaking, it has not been considered that a builder required a standard of education, either general or technological, beyond that necessary to grasp with reasonable intelligence the instructions of the architect and to obey them implicitly, regardless of their suitability at a particular time or circumstance.

It is to be deplored that the building industry did not recognise when it first negotiated a Standard Form of Contract with the R.I.B.A. at about 1870 that the contract placed upon the builder such legal responsibilities that necessitated his possessing a standard of education comparable with that of the architect, for it must never be overlooked that whenever a builder signs a normal building contract, he is in law responsible to the building owner for the structural stability of the building, despite the fact that he has had nothing to do with its design.

This grave responsibility should alone be sufficient to stir every building trades employer to the realisation that it is essential that he and his senior technical staff shall be as well equipped educationally as the person who designed the building as agent for the building owner.

The Sub-Committee, recognising the far-reaching future effect of the Education Act, 1944, desire to record their opinion that the training of the builder and his senior technical staff must in future be properly planned from the school-leaving age on principles similar to those that exist in other professions, e.g., architecture, surveying, engineering, medicine.

There is set out in the Appendix a list of the positions that exist in the administrative staff of the builder, showing the standard of education at entry, the technical and practical tuition required, and the ultimate post to be filled by the successful student. This Appendix shows that all those senior members of the staff, including the builder himself, who have to express themselves in building technology must commence their career with a general educational standard of the School-leaving Certificate or its new substitute, or, in exceptional circumstances, provide satisfactory evidence that this acceptable standard has been reached.

The Sub-Committee feel that such a standard is vital to securing an enhanced status so essential in the industrial world of the future.

The example from the Appendix of the potential builder may be quoted here to illustrate the recommendations. Where the circumstances of the parent demand it, the student can leave whole-time general education at or after the age of 16 years, and presumably equipped with

the School-leaving Certificate (or its proposed new substitute—the General Education Certificate) enter and pass through the Ordinary National Diploma Course of two years' whole-time technological education; and, at the age of 18 years plus, enter an approved firm, on a known salary basis, for a period of three years (concurrently taking the *Higher* National Certificate Course). The student thus completes five years of ordered and systematic training, which should be finalised by his obtaining, by the customary examination, the Licentiate Diploma of the Institute of Builders, which would be the recognised standard of qualification for appointment as a junior partner, or as an under manager in a firm of suitable size.

If, however, the student has obtained the Higher Schools Certificate (or its proposed substitute) he can enter directly the Higher National Diploma Course, of three years, to be followed by the industrial training of three years with an approved firm, and, passing the examination of the Licentiate Diploma of the Institute of Builders, he would be provided with higher qualifications than those quoted above.

Under the present arrangements of deferment from military service, students passing through either of these courses of training would, subject to the use of a standard and approved written agreement, normally obtain deferment for a period of five years.

Recruitment.

Hitherto recruitment to the higher ranks of the administrative staff of the builder has taken place on a rather haphazard basis. Very often the son of the principal of a business, who has been intended to succeed his father, has received much, if not all, his training in his father's firm, possibly working at one of the crafts for a year or so and completing his training under the tuition of the staff of his father's business. For many obvious reasons such a method of training is not to be commended; in fact, it makes the task of the student extremely difficult when ultimately he attempts to exert authority as a comparatively young man over older members of his father's staff who have had the earlier task of teaching him a portion of what he knows.

In the case of other members of the staff, such as managers, estimators and supervisors, these have very often been promoted from either the craft rank, who normally possess a general education standard far below that necessary for their senior appointment, or have commenced in the builders' office as a junior clerk or office boy and, to some extent, suffer the same disabilities.

Whilst not condemning in any way the past achievements of this admirable class of men, many of whom have left a noble mark upon the history of building in the past century, the fact remains that their task has been made much more difficult because of the handicap they had to bear in general education and cultural knowledge in being behind the standard of their opposite number practising architecture or surveying. This has given architects generally some grounds for believing they alone possess the necessary real qualifications to express an opinion upon building construction and structural enterprise, and that the builder's function should be properly limited to obeying their instructions without comment, even when necessary.

The Sub-Committee, therefore, desire to emphasise that the policy in the future should be to make the physical side of building as attractive to the student of the public schools and the higher secondary schools as are several of the other professions, such as architecture, law and medicine. This can only be done by insisting upon a minimum good standard of education, rigorous and planned years of training, a qualifying examination at the end of the training period, and finally, and not least, the knowledge that if they take building as a career their scope and remuneration will compare favourably with the other professions and callings to which reference has been made.

The Sub-Committee also wish to express their opinion that building as a profession should be made attractive to the university student, whose education on a broader basis should make him, if properly trained in technology, eminently suitable for the higher responsible positions with substantial firms in the building industry. In order, therefore, to make recruitment attractive for the coming generation of young men who will direct the building industry, it must be made known to parents and the principals of public and secondary schools and universities that the building industry offers scope and suitable rewards for these men when trained.

The Sub-Committee are considering (see the Appendix) the scale of salary which a young man, suitably trained in accordance with the proposals contained in this report, and having obtained the qualifying examination, may be expected to earn in the early years of his appointment to one of the positions stated in the Appendix, with an indication that the field of promotion is wide open to him with the natural increase in remuneration which greater responsibility and knowledge customarily carries with it.

Annual Intake.

It has been estimated, by an experienced authority, that within the area covered by the National Federation of Building Trades Employers some 200 students per annum should be recruited to fill the vacancies in the three senior positions of builder, general manager and estimator. The Sub-Committee have no details before them which would allow them to confirm or comment upon this figure, and, in accepting it for the purpose of this report, consider that one-tenth of this number, i.e. 20 students per annum, would be a reasonable estimate of the requirements for recruitment annually in the Southern Counties Region.

Training Facilities.

There exist in the Southern Counties Region two building schools, at Brighton and Guildford, which provide National Diploma Courses in Building, including (at Brighton) the Higher Diploma Course, the latter involving a period of three years. From evidence available, it would appear that the Brighton school is successful and popular, and that the courses are well-attended. The Ordinary Course at Guildford has only recently been introduced.

The Sub-Committee, therefore, feel that these two schools in the Southern Counties Region may well be able to cope with the training for some years of the normal intake for this Region, particularly as part of the Southern Counties Region is close to London, where there are several schools which have National Diploma Courses. It is not felt that any useful purpose would be served at the moment by urging other schools in the Southern Counties Region to institute the National Diploma Course, for that might have the unfortunate effect of commencing a course for young men who intended to swerve away from building proper into one of the fringe professions such as surveying, etc. The Sub-Committee, therefore, would prefer to watch developments over the next few years so that they could make recommendations at an appropriate time if further facilities were required in other parts of the Region, such as in Kent, or in Hampshire, or Oxfordshire or Berkshire.

National Diploma and Certificate Courses.

The ordinary National *Diploma* Course is a senior whole-time course, commencing normally at school-leaving age and extending over a period of two years. The Higher National Diploma Course is an advanced whole-time course for a period of three years (with exemption provision from the ordinary Diploma Course). The two Diplomas are awarded on assessed examination, class-work, home-work and study, over the whole period of the course. The National *Certificate* course for the ordinary Certificate is for a part-time (evening) course extending over a period of three years, and that for the *Higher* National *Certificate* over a period of a further two years—the Certificates being awarded, as in the case of the Diplomas, as the result of an assessed examination, home-work, class-work and study.

Generally speaking, both the Diploma and the Certificate course provide good training for the positions which this report has under review; nevertheless, both these courses (particularly the Diploma course) are capable of a certain amount of improvement in the light of experience over the past 20 years since they were first instituted.

Scholarships.

The Sub-Committee have no comments to make as a part of this report upon the general work of the Building Apprenticeship and Training Council, but they do record with satisfaction that it was this body that first awarded scholarships open to craft and other students in England, Scotland and Wales. The Council of the Southern Counties Federation led the way in 1947, with the London Master Builders' Association, as units of the National Federation, by becoming responsible for the cost of one of the four scholarships awarded that year. In accordance with the terms of that gift, a craft apprentice was awarded a scholarship, which he is spending in a three-year Higher Diploma Course at the L.C.C. School of Building at Brixton.

Having in mind the imperative need for a quickly enhanced status for the builder and his senior staff, the Committee feel it is eminently desirable that further scholarships should be awarded directly by the Southern Counties Federation, quite distinct and separate from those scholarships which will continue to be awarded and administered by the B.A.T.C., and accordingly recommend that there be inaugurated by the Federation a Southern Counties Scholarship and Welfare Fund for Higher Education in Building.

The further Scholarships recommended should be available and restricted (a) to candidates undergoing education at public schools and grammar schools located in the administrative area of the Southern Counties Federation; and (b) to sons of members whose schools may be situated anywhere.

Scholarships should be of varying values, according to the financial capacity and responsibilities of the parent or guardian, and range from, say, £75 to £200 per annum for two and three-year courses.

Generally, candidates should possess a standard of general education, at present certified by the School Certificate of the

Oxford and Cambridge Joint Board, although it should be here stated that such school certificates are about to be superseded by another form of test and certification. Preference in selection of candidates should normally be given to those who have matriculated, thus qualifying them for entry into a Degree Course.

Scholarship and Welfare Fund.

It may be thought that within the provisions of the Education Act, 1944, Local Education Authorities will have the power and be willing to make financial grants for the type of scholarship the Committee have in mind. While there may be isolated instances where a scholar would be assisted from Local Education funds, it would, at least for some years, be unsafe to legislate for scholarships in the belief that external financial assistance will be generally available; mainly on the grounds that, failing an examination prepared by a university, Authorities would view with some scepticism the competence of a body, not incorporated for the sole purposes of education, claiming the ability to apply an educational test. Even if a scholarship examination were conducted on a national basis, except by a recognised Education Authority, it is doubtful if such a venture would be supported financially by Local Education Authorities.

In the view of the Committee, it seems clear that the Southern Counties Region must be prepared fully to finance its faith in a new educational outlook. Indeed, this policy may have many advantages, for it would leave absolute control in the hands of those whose enterprise and sacrifices make this admirable policy possible.

The Committee therefore recommend that the Council should express the annual amount it would be prepared to allocate to this form of education for a definite period so that scholarships might be awarded in several successive years, and so enable the Committee to frame specific and detailed proposals.

The accompanying table (see following page) shows the annual expenditure to the Federation on the basis of a generous annual expenditure of £150 per annum per Scholarship.

Accordingly it is recommended that the Federation allocates £800 per annum for five years and appoints Members to administer and carry out the purposes for which the Fund is proposed.

Industrial Training.

As stated above, young men leaving a university or building college at the age of 18 to 21 will have been educated in general building, quantities and related subjects, and will require to complete their full training period of some two years or more with suitable and experienced employers, where they will, whilst being assisted to acquire building practice, be of value to their employers. It would be necessary for them to be trained to an approved system, which would include site experience, surveying, estimating and administration.

APPENDIX

DETAILED LIST OF ADMINISTRATIVE APPOINTMENTS, TECHNOLOGICAL TRAINING AND SUGGESTED REMUNERATION

Appointment.	*Age of Entry to Training (Minimum).*	*Educational Standard at Entry (Minimum).*	*Type and Period of Technological Tuition.*	*Type and Period of Industrial Tuition.*	*Final Qualification.*	*Suggested Scale of Remuneration during Training.*		
						1st Year	*2nd Year*	*3rd Year*
MASTER BUILDER (POTENTIAL PARTNER OR EQUIVALENT ON COMPLETION OF TRAINING).	(*a*) 18	Matriculation.	A University Degree Course 3 years.	ASSISTANT GENERAL FOREMAN. ASSISTANT SURVEYOR AND ESTIMATOR. ASSISTANT TO PRINCIPAL. Three Years Total.	L.I.O.B. at age 22/24. A.I.O.B. at age 24/25. Plus B.Sc. if University Graduate.	(*a*) £208	£247	£302
	(*b*) 17 Plus	Higher Schools Certificate.	University Degree Course 3 years; or Higher National Diploma 3 Year Course.			(*b*) £208	£247	£302
	(*c*) 16 Plus	General Education Certificate.	Ordinary National Diploma Course followed by Higher National Certificate Course.			(*c*) £182	£221	£276
BUILDER'S MANAGER	ALL	AS	MASTER	BUILDER	ABOVE.			
ESTIMATOR AND SURVEYOR.	16 Plus	General Education Certificate applicable to Leavers at Modern Grammar School.	All as Master Builder (*c*).	ASSISTANT GENERAL FOREMAN (1 year). ASSISTANT SURVEYOR (2 years).	L.I.O.B. at age 22.	£181	£221	£276
PRODUCTION ASSISTANT.	16 Plus	As Estimator and Surveyor.	All as Master Builder (*c*).	ASSISTANT GENERAL FOREMAN (2 years). ASSISTANT ESTIMATOR ONLY (1 year).	L.I.O.B. at age 22.	£181	£221	£276
CONTRACT MANAGER.	15 Plus	G.E.C.	Ordinary and Higher National Certificate in Building (5 years Course).	5-YEAR CRAFT INDENTURE (BRICKLAYER, MASON or CARPENTER AND JOINER).	1st Class City and Guilds Craft or General Technological Certificate and/or Higher National Certificate in Building.	Craft Apprentice Rates.		
BUYER.	15 Plus	G.E.C.	Commercial course (R.S.A.). Later Ordinary National Certificate Course in Building.	PRIME COSTING DEPARTMENT (2 years). TIMEKEEPER (SITES) (1 year). ESTIMATING DEPARTMENT (1 year).	R.S.A. or City and Guilds Commercial Certificate. Ordinary National Certificate in Building.	1st Year £91 2nd Year £117 3rd Year £169 4th Year £221 5th Year £273		
CHIEF COST CLERK.	ALL	AS	BUYER	COSTING DEPARTMENT (4 years). ESTIMATING DEPARTMENT (1 year).	As Buyer.	All as Buyer.		
COST CLERKS. LEDGER CLEKRS.	15 Plus	G.E.C.	Commercial course (R.S.A.).	AT APPROPRIATE LEVEL AND ADVANCEMENT.	R.S.A. or City and Guilds Commercial Certificate.	Approximate Craft Rates adjustable on ability.		

TABLE TO SHOW ANNUAL COST TO THE FEDERATION OF THE NUMBER OF THREE-YEAR SCHOLARSHIPS PER ANNUM INDICATED AT AN AVERAGE OF £150 PER ANNUM PER STUDENT:—

	Two in each of		*Three in each of*		*Four in each of*	
	two successive years	*four successive years*	*two successive years*	*four successive years*	*two successive years*	*four successive years*
	£	£	£	£	£	£
1949	300	300	450	450	600	600
1950	600	600	900	900	1,200	1,200
1951	600	900	900	1,350	1,200	1,800
1952	300	900	450	1,350	600	1,800
1953		600		900		1,200
1954		300		450		600

During this final period of training the pupil would be paid a salary, related to the principles of the wages of craft apprentices, having regard to his National Diploma value, and bearing in mind that within a very few years he should be a highly skilled member of some managerial staff. The Appendix to this report suggests for consideration a scale of salary to be paid during this final period of training.

Your Committee recommend that a Regional register of Student Pupils be compiled, containing annotated progress throughout their university (or college) and industrial training; further that pupils would be registered on entry into a university or college and at the same time be nominated to a specific employer for final training, with provisions for transfer to another employer if found to be in the pupil's interest.

This would assure normal deferment from Military Service until completion of training, not exceeding five years.

It would be implicit in a training scheme of the kind outlined that scholars would remain in employment when qualified for a period of three years and non-scholars for a period of one year with a member of the Southern Counties Federation, with provision for their being released from this obligation if it involved their being unemployed for a period beyond, say, two months after completing their articles, and providing they held the necessary qualification of the L.I.O.B.

The report is signed on behalf of the Committee by Mr. Geoffrey O. Swayne and Mr. Anthony L. Peyman.

SOUTHERN COUNTIES' PRESIDENT

MR. W. KEITH MARTIN, a member of the East Sussex County Council and chairman of the Hailsham Rural District Council, has been elected president of the Southern Counties Federation of Building Trades Employers. He is chairman and managing director of the Kingsway Building Society, managing director of Martin and Saunders, Ltd., Eastbourne, and governing director of Anderida, Ltd.

The following are his views on the methods required for improving the building industry:—

Let private enterprise build houses for those who are able and willing to provide their own accommodation. This will save the nation £1,320 per house over 60 years, and if private enterprise builds 3,000,000 houses, as it did between the wars, it will save the nation £3,960,000,000.

Give the workers a better food ration.

Remove the control from building materials, with the exception of timber, and leave the industry to build in a competitive market. Give the control of timber to the importers who could make a better job of it than civil servants.

Encourage and provide greater scope for individual effort which could, and should, become the greatest force in the country's rehabilitation.

L.M.B.A.

Information Service

THE following notes are given in the London Master Builders' Association Information Service Circular No. 1/1949, dated January 18:—

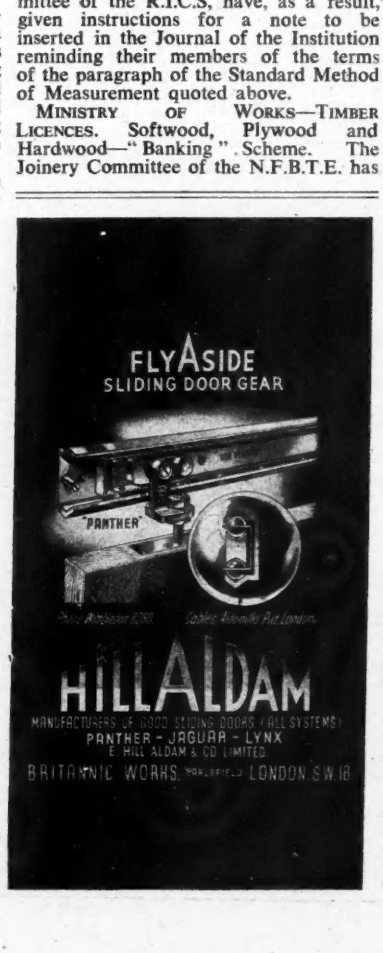
DISTRICT SURVEYORS' FEES.—Inclusion in Bills of Quantities. The attention of the Association has recently been drawn to a practice which has apparently been increasing among Quantity Surveyors of making no specific mention in Bills of Quantities of District Surveyors' fees but merely referring to Clause 3 of the R.I.B.A. Standard Form of Contract. The matter has been referred to the N.F.B.T.E. who have brought the point to the notice of the Royal Institution of Chartered Surveyors and have pointed out that Clause 8 of the Preliminaries of the Fourth Edition of the Standard Method of Measurement of Building Works calls for the inclusion in Bills of Quantities of "full particulars for calculating District Surveyors' charges in London." The Quantity Surveyors' Committee of the R.I.C.S, have, as a result, given instructions for a note to be inserted in the Journal of the Institution reminding their members of the terms of the paragraph of the Standard Method of Measurement quoted above.

MINISTRY OF WORKS—TIMBER LICENCES. Softwood, Plywood and Hardwood—"Banking" Scheme. The Joinery Committee of the N.F.B.T.E. has recently considered a memorandum with regard to a scheme being operated by the Building Materials Division of the Ministry of Works for the "Banking" of softwood, plywood and hardwood, use of which can also be made by joinery manufacturers in connection with obtaining supplies of hardboard for certain non-constructional purposes. The arrangement provides for joinery manufacturers to forward to the Ministry of Works all licences received from their clients and, as it were, open a banking account with the Ministry for the amount of timber thus licensed.

The licences are returned to the manufacturer without delay and he may thereafter make application to draw against his timber account and receives the necessary permit by return. It is suggested that builders who experience delay in obtaining the return of their licences from joinery manufacturers should make a point of suggesting that the manufacturer should take advantage of this scheme, details of which can be obtained from the Deputy Director of Production (B.M. 4), Ministry of Works, Lambeth Bridge House, S.E.1.

It is understood that there would be no objection to the same procedure being used by builders who manufacture their own joinery. This would have some advantages for them in that in certain instances they may be able to group their requirements and thus deal in quantities which would not be subject to percentage increase under the Price Control Order. Further, it would be possible for a builder to adjust his orders irrespective of the period of validity of any individual licence in order to secure the particular grade or specification of timber required.

The Ministry have also pointed out that one-eighth inch standard hardboard can be credited to the account of joinery manufacturers banking their timbers as above and that to obtain credit of hardboard the applicant should, when forwarding his timber licences, include a certificate in duplicate to the effect that the timber to be credited to his account from the attached licence will necessitate the use of *x* feet super of one-eighth inch standard hardboard for the supply of doors, kitchen and cupboard fittings, and staircase cladding. (The scheme does not apply to hardboard for constructional purposes). This procedure makes it unnecessary for the joinery manufacturer to obtain B.M.S.H. forms for hardboard and he can offer the builder-customer goods of the type mentioned above against a timber licence only.



OBITUARY

W. H. Purnell, J.P., M.I.Mech.E.

With the passing of Walter Henry Purnell, chairman of Herbert Morris Ltd., Loughborough, on January 18, the engineering industry has lost an outstanding leader of ability and experience. He was one of the small band of promising young men gathered together by the late Herbert Morris, and it was a fitting tribute to his previous services that when the founder of the company died, Mr. Purnell was unanimously chosen to succeed him as chairman. Born in 1869, he joined the firm in 1899 and it was his proud claim that during his long association with business he had successfully occupied every one of its higher executive positions of both the manufacturing and business sides. He was a County Justice of the Peace for many years, and a governor of both the Loughborough College and the Loughborough Hospital.

RATES OF WAGES IN THE BUILDING TRADE [AS FROM FEB. 7, 1949]

(Every endeavour is made to ensure accuracy, but we cannot be responsible for errors)

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification,	A	A1	A2	A3
Craftsmen	2/10	2/9½	2/9	2/8½
Labourers	2/3½	2/3	2/2½	2/2

Town.	Grade.
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A2
Accrington	A
Addlestone	A
Aldeburgh	A3
Aldershot District	A2
Alfreton U.D.	A
Alnwick	A1
Altrincham	A
Amble	A1
Amersham	A1
Ammanford	A
Andover	A2
Ardingly	A2
Arundel	A2
Ascot	A2
Ashby-de-la-Zouch U.D.	A
Ashby Woulds U.D.	A
Ashford (Kent)	A2
Ashford (Middlesex)	A
Ashington	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A2
Atherstone (parts of)	A1
Aylesbury	A2
Aylesby (Yorks)	A
Aylesham	A3
Bagshot	A2
Bakewell U.D.	A2
Banbury	A2
Barnard Castle U.D.	A1
Barnoldswick U.D.	A1
Barnsley	A
Barrow-in-Furness	A
Barrow-upon-Soar R.D. (exc. Thrussington A2)	A
Barry	A
Basford R.D. (exc. Willough-by-on-the-Wolds A2)	A
Basingstoke	A2
Bath	A
Batley	A
Baxterley	A1
Beaconsfield & District	A1
Beamish	A
Bearl	A
Bearpark	A
Beccles	A3
Bedale R.D.	A
Bedford	A
Bedlington	A
Bedwas	A
Beeston & Stapleford U.D.	A
Belper U.D.	A
Belton	A
Berkhamsted	A1
Berrington	A1
Berwick District	A1
Beverley	A
Bexhill-on-Sea	A2
Biggleswade	A2
Billericay	A1
Billing	A
Billingham U.D.	A
Bilsthorpe	A
Birchington	A2
Birkenhead	*
Birmingham C.B.	†A
Bishop Auckland	A
Bishop's Stortford	A1
Bispham	A
Blackburn	A
Blackpool	A
Blackwell R.D.	A
Blaydon U. D.	A
Blidworth	A
Blyth	A
Bognor Regis	A2
Boldon U.D.	A
Bolsover U.D.	A
Bolton	A
Bourne End	A1
Bournemouth District	A1
Bracknell	A2
Bradford	A
Bradford-on-Avon	A2
Braintree	A2
Breconshire, County of	‡A3
Brent Knoll	A2
Brentwood	A
Bridlington	A
Brierfield	A
Brighouse	A
Brighton	A1
Bristol	A
Broadstairs	A2
Bromsgrove U.D.	A
Brough	A
Broughton (Cheshire)	A
Buckley	A
Bungay	A3
Burnham-on-Crouch	A3
Burnley	A
Burton-on-Trent C.B.	A
Bury	A
Bury St. Edmunds	A3
Buxton	A1
Byfleet	A1
Calder Valley	A
Cambridge	A
Cannock U.D.	A
Canterbury	A2
Cardiff	A
Cardiganshire, County of	‡A3
Carlisle	A
Carmarthenshire, Cnty.of	‡A3
Carnarvonshire, Cnty of	‡A3
Carnforth	A
Castleford	A
Caterham	A
Chapel-en-le-Frith	A1
Charmy Down	A
Chatham & District	A1
Cheadle (Staffs) R.D.	A
Chelmsford	A
Cheltenham	A1
Chepstow	A1
Chertsey	A
Chester	A
Chesterfield M.B.	A
Chesterfield R.D.	A
Chester-le-Street U.D.	A
Chichester	A2
Chippenham (inc. Chippen-ham Within and Harden-huish)	A2
Chorley	A
Clacton	A1
Cleethorpes	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville U.D.	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A1
Congleton	A1
Consett	A
Conway	A1
Cornwall, County of	‡A2
Coventry C.B.	A
Cranbrook	A2
Cranleigh	A2
Crawley (Sussex)	A2
Crewe	A
Cromer	A1
Crowborough	A2
Cuckfield	A2
Dalton-in-Furness	A
Darlington District	A
Darwen	A
Deal	A2
Denbigh Town	A2
Derby C.B.	A
Devizes	A2
Devon, County of	‡A2
Dewsbury	A
Didcot	A2
Diss	A3
Doncaster C.B.	A
Dorking	A1
Dorset, County of (except-ing Poole and Wimborne A1)	A2
Dover	A2
Dovercourt	A1
Driffield U.D.	A1
Droitwich M.B.	A1
Dudley M.B.	A
Dunstable	A
Durham City	A
Eastbourne	A1
E. Glam. & Mon. Val.	A
East Grinstead District	A2
Eastwood (Notts.) U.D.	A
Ebbw Vale & District	A
Edenbridge	A2
Ely	A3
Epping	A
Exeter	A1
Fakenham	A3
Falmouth	A2
Fareham	A
Faversham	A2
Felixstowe	A1
Filey U.D.	A1
Fleetwood	A
Flint	A
Folkestone	A2
Frinton	A1
Frome	A1
Gainsborough R.D. (Mid. pt.)	A2
Gateshead	A
Gillingham (Kent)	A1
Glossop	A
Gloucester	A1
Gloucestershire, Cnty. of	‡A2
Godalming	A2
Goole M.B.	A
Gosport	A
Grantham M.B.	A1
Gravesend	A
Great Yarmouth	A1
Grimsby (Yorks.)	A
Grimsby R.D. (Lincs.)	A3
Guildford District	A2
Guilsborough	A1
Guiseley	A
Halesowen M.B.	A
Halifax	A
Halstead	A2
Haresfield	A1
Harlow	A1
Harpenden	A1
Harrogate	A
Hartlepool	A
Harwich	A1
Haslemere	A2
Hastings	A2
Hatfield (Herts.)	A
Haywards Heath	A2
Hemel Hempstead	A1
Henley-on-Thames	A2
Hereford	A2
Herefordshire, Cnty. of	‡A2
Herne Bay	A2
Hertford	A
Hexham U.D.	A
Heysham	A
High Wycombe	A1
Highworth	A2
Hinckley U.D.	A
Hitchin	A1
Hoddesdon	A
Horley	A2
Horsham	A2
Horwich	A
Huddersfield	A
Hull	A
Hunstanton	A2
Huntingdon (Staffs)	A
Ilkley	A
Ingatestone	A1
Ipswich	A
Isle of Sheppey	A2
Isle of Thanet	A2
Isle of Wight	A3
Jarrow M.B.	A
Keighley	A
Kendal	A
Kenilworth U.D.	A
Kettering M.B.	A
Keynsham	A
Kidderminster M.B.	A
King's Lynn	A2
Kingskerswell	A1
Kingsteignton	A1
Kirkham	A
Knaresborough U.D.	A
Knowle	A1
Lancaster	A
Leamington M.B.	A
Leatherhead	A
Leeds	A
Leicester C.B.	A
Leighton Buzzard	A2
Letchworth	A1
Lewes	A2
Lichfield M.B.	A1
Lincoln C.B.	A
Littlehampton	A2
Liverpool	*
Llandudno	A2
Llanelly	A
London	*
Long Eaton	A
Loughborough M.B.	A
Louth M.B.	A2
Lowestoft	A1
Loxton	A2
Luton	A
Lyneham (Devon)	A1
Macclesfield	A1
Maidenhead	A1
Maidstone	A1
Maltby	A
Maldon (Essex)	A2
Malvern U.D.	A2
Manchester	A
Manningtree	A1
Mansfield M.B.	A
March	A2
Margate	A2
Market Harborough	A1
Maryport	A
Matlock U.D.	A1
Melksham	A2
Melton Constable	A3
Melton Mowbray U.D.	A2
Merthyr	A
Middlesbrough	A
Middleton	A
Middlewich	A1
Milford Haven	A2
Morecambe	A
Morley	A
Mundesley	A2
Nantwich	A1
Nelson	A
Newark-on-Trent R.D.	A1
Newbury	A2
Newcastle-on-Tyne	A
Newcastle-under-Lyme	A
New Forest District	A2
Newmarket	A2
Newport, Mon.	A
Newport Pagnell	A2
Newton Abbot	A1
Northallerton Dist.	A
Northampton C.B.	A
North Shields	A
Norton Radstock	A1
Norwich	A
Nottingham C.B.	A
Nuneaton M.B.	A
Oakham U.D.	A2
Oldham	A
Ongar	A
Ormskirk	A
Ossett and Horbury	A
Oxford	A
Oxted	A1
Paignton	A1
Peterborough	A
,, Soke	A1
Pickering	A3
Plymouth	A
Pontefract	A
Pontypridd District	A
Portishead	A
Portland Stoneyards	A
Portsmouth	A
Port Talbot	A
Preston	A
Pudsey	A
Pulborough	A2
Radnorshire, County of	‡A3
Ramsgate	A2
Rayleigh	A1
Reading	A
Redcar B.	A
Redditch U.D.	A
Redhill and Reigate	A
Ripon	A3
Rochdale	A
Rochester	A1
Rotherham	A
Rugby M.B.	A
Saffron Walden	A2
St. Albans	A
St. Helens	A
St. Neots	A2
Salisbury City	A2
Salisbury Plain	A2
Sawbridgeworth	A1
Saxmundham	A3
Scarborough	A
Scunthorpe	A
Selby	A
Sevenoaks	A1
Sheerness	A2
Sheffield	A
Shipley	A
Shoeburyness	A
Shoreham	A1
Shrewsbury M.B.	A
Sittingbourne	A2
Skegness U.D.	A1
Skipton U.D.	A1
Sleaford U.D.	A2
Slough	A1
Smethwick C.B.	†A
Snettisham	A2
Somerset, County of	‡A2
Southampton	A
Southend-on-Sea Dist.	A
Southport	A
South Shields C.B.	A
Spalding U.D.	A2
Stafford M.B.	A
Staines	A
Stamford M.B.	A1
Stantonwick	A
Stevenage	A1
Stockport	A
Stockton R.D.	A
Stockton-on-Tees	A
Stoke-on-Trent C.B.	A
Stoke Orchard	A1
Stourbridge M.B.	A
Stourport U.D.	A
Stowmarket	A3
Stratford-on-Avon M.B.	A1
Sunderland District	A
Sunningdale	A
Sutton Coldfield M.B.	A
Swaffham	A3
Swanage	A2
Swansea	A
Swindon	A2
Swinton U.D.	A
Tamworth M.B.	A
Tenterden	A2
Tewkesbury	A1
Thames Haven	A
Thetford	A3
Thorpe Bay	A
Thurrock U.D.C. Area	A
,, North of, to Billericay	A1
Tilbury	A
Todmorden	A
Tonbridge	A1
Torquay	A1
Totnes	A1
Trowbridge	A2
Tunbridge Wells	A1
Tynemouth C.B.	A
Uppingham (Salop)	A1
Uttoxeter U.D.	A2
Wakefield	A
Wallsend B.	A
Walsall C.B.	A
Walsden	A
Walton-on-Naze	A1
Ware	A
Warminster	A2
Warrington	A
Warwick M.B.	A
Wellington R.D.	A1
Wells (Norfolk)	A3
Welwyn	A
Welwyn Gar. City	A
West Bromwich C.B.	A
Westbury	A2
Westcliff-on-Sea	A
Westerham	A1
Weston-super-Mare	A1
Weybridge	A
Weymouth	A2
Whitby U.D.	A1
Whitstable and District	A2
Wickford	A1
Widnes	A
Wigan	A
Wigton	A3
Willington	A
Wilmslow	A
Wilts. County of	‡A2
Winchester	A2
Windermere	A3
Windsor and Eton	A1
Wisbech	A2
Witham	A2
Woking (District)	A1
Wokingham	A2
Wolverhampton C.B.	A
Woodbridge	A3
Worcester C.B.	A
Workington	A
Worksop M.B.	A
Worthing	A2
Wrexham (incl. Cefn)	A
Wroughton	A2
Wylam	A
Wymondham	A3
York	A

* For Birkenhead, Liverpool, and London the rates are :—Craftsmen, 2s. 11½d.; Labourers, 2s. 4¾d. In the case of London the rate beyond the 12-mile radius is :—Craftsmen, 2s. 11d.; Labourers, 2s. 4d.

† Plus 2d. per working day.

‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters, Joiners and Plumbers in all towns and districts receive 2d. per day Tool Allowances.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 2/- per hour. Women introduced to carry out work other than craft processes, 1s. 8d. per hour.

For Building Trade Wages in Scotland, see page 168

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will of course be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of softwoods are for cash on delivery.

BRICKS, etc.

	£ s. d.
First Hard Stocks	8 15 0
Second Hard Stocks	8 0 0
Mild Stocks	6 10 0

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

2½-in Nominal Phorpres Bricks.	At Maiden Lane Stn., per 1,000.	To Sites in West Central District per 1,000.
	s. d.	s. d.
Commons ..	73 0	85 0
Cellular	67 11	85 0
Keyed	75 0	87 0
Cellular Keyed ..	69 11	87 0
Rustics	93 0	105 0
Cellular Rustics ..	87 11	105 0
Single Bullnose ..	93 0	105 0
Sandfaced ..	103 0	115 0
Cortex Facing Brick	88 0	100 0

* At Kings Cross Stn. † ex Kings Cross Stn.

	£ s. d.
Best blue Pressed Staffs. (London Stns.) ..	18 13 0
Do. Bullnose (London Stns.)	19 6 0
Blue Wire Cuts (London Stns.)	16 11 6

Best Stourbridge Fire Brick (London Stns.) :—

£ s. d.	£ s. d.
2½ in. .. 16 18 6	3 in. .. 19 16 0

GLAZED BRICKS (London Stns.). The prices given below are now subject to a percentage addition of 22½.

Best White Ivory and Salt Glazed		D'ble Stretchers	53 10 0
		D'ble Headers	48 10 0
Stretcher	40 0 0	One side & two ends	54 10 0
Headers	39 10 0	Two sides & one end	56 0 0
Quoins, Bullnose & 4½in. Flats	50 0 0	Splays and Squints ..	52 0 0

Second Quality, £2 0s. per 1,000 less than best. Cream and buff, £2 0s. extra over white. Other colours. Hard Glaze, £5 10s. 0d. extra over white.

Haulage to site 20s. 1,000.

PARTITION SLABS.

Delivered Central London Area.

HOLLOW CLAY PARTITION BLOCKS.
London Brick Company.

Minimum Lorry Loads. Keyed.	s. d.
2" per yd. sup. 120 yds.	3 1
2½" " " 100 "	3 4
3" " " 100 "	4 0
4" " " 84 "	4 7

Half blocks *add* 2s. per yard super to above prices

CLINKER CONCRETE.

2" per yd. sup.	2 7	3" per yd. sup.	3 6
2½" " "	3 1	4" " " ..	4 6

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	3 1
Size 12 x 9 x 2½" " "	3 4
Size 12 x 9 x 3" " "	4 0
Size 12 x 9 x 4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12 x 9 x 2"	3 1	12 x 9 x 3"	4 0
12 x 9 x 2½"	3 4	12 x 9 x 4"	4 7

Per yard super d/d. Free on site, London. Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

	s. d.
BATH STONE—	
Monks Park	5 4
St. Aldhelm Box Ground	5 10
Delivered in railway trucks at South Lambeth, G.W.R., per ft. cube.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S.Rly. per ft. cube	6 1½
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE—	
F.O.R. Quarries, Wirksworth, Derbyshire. Random blocks up to 3 ft. 3 in. long and not over 10 cu. ft. per ft. cube	22 6
Slabs—Random sizes sawn 2 sides, up to 5 ft. long and not over 15 ft. super, ½ in. per ft. super	4 7
YORK STONE, BLUE—*Robin Hood Quality*.	
Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super	9 4
6 in. rubbed two sides, ditto "	10 10
3 in. sawn two sides slabs (random sizes) "	4 5
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) .. "	2 4
1½ in. to 2 in. ditto "	2 1½
HARD YORK—	
Delivered at any Goods Station, London	
Scrappled random blocks per ft. cube	13 4
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super	10 0
6 in. rubbed two sides, ditto "	11 10
4 in. sawn two sides slabs (random sizes) "	6 5
3 in. ditto ditto "	4 10
2 in. self-faced random flags per yd. super	19 9

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification delivered London area	3 0 6
6-ton loads and upwards site ..... per ton	3 3 6
1- to 6-tons site	
In non-returnable paper bags charged at 11/– net per ton or 7d. each net per sack in lots of less than 1 ton.	
In non-returnable jute sacks charged at 11/– per ton.	
In returnable jute sacks charged at the rate of 35/6 net per ton of cement of 1/9½ net per sack in lots of less than 1 ton. Credit on return at 1/6 net per sack.	
In returnable cotton sacks charged at the rate of 3/4 net each sack. Credit on return at 3/– net each sack.	
"Ferrocrete" Rapid Hardening Cement	
6-ton. loads and upwards site	3 6 6
1- to 6-tons site	3 9 6
In paper bags 11/– per ton extra.	
"Aquacrete" Water Repellent cement, 31/6 per ton on ordinary "Blue Circle" prices. In paper bags, 9/– per ton extra.	
Red, Buff or Khaki "Colorcrete" in 6-ton lots	5 2 0
In paper bags 9/– per ton extra.	
Other colours, according to colour. In 4-ton lots from 173/– to 397/– per ton (including paper bags).	
"Snowcrete" White Portland Cement (In free paper bags)	11 14 0
Under one ton ..... per cwt.	0 13 11
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6-ton lots and upwards	4 2 0
In paper bags 9/– per ton extra.	
Super Cement (Waterproof), bags extra..	4 12 0
Cullamix Tyrolean Finish....£7 15 6 to (1-ton lots and upwards, including cost of paper bags).	9 9 0

£ s. d.	£ s. d.
Parian Cement 8 14 3	Keen's Cement, White 8 14 3
	Pink 8 8 0

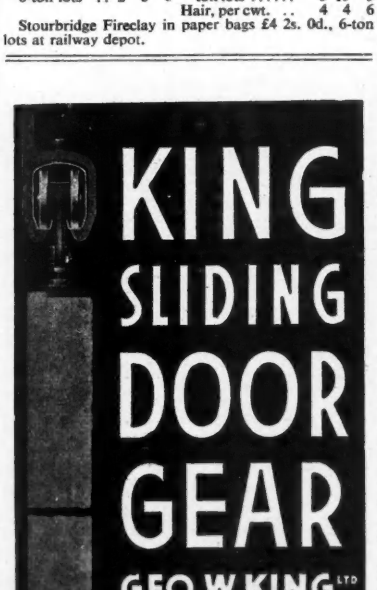
PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	5 8 0	Sirapite, Coarse..	5 8 6
" White	5 17 3	" Finish ..	5 16 6

Above prices for 1-ton loads and over London Area.

Blue Lias Lime, inc. bags, 6-ton lots	5 17 6	Hydrated Lime, 6-ton lots	4 1 6
Granite Chips, 6-ton lots ..	2 3 0	Lump Lime, 6-ton lots	3 15 3
		Hair, per cwt. ..	4 4 6

Stourbridge Fireclay in paper bags £4 2s. 0d., 6-ton lots at railway depot.



SAND.

D/D site in full lorry loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

		s. d.
Thames Ballast	per yd.	15 9
Pit Ballast	"	15 10
Pit Sand	"	15 2
Washed Sand	"	17 0
½ in. shingle	"	15 2
¼ in. Broken Brick	"	17 6
Pan Breeze	"	10 4

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons ..... Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire districts	9 14 6
Ditto, hand-made, ditto	11 11 0
Ornamental ditto	12 4 0
Hip and valley tiles—Hand-made	19 5
(per dozen) —Machine-made	18 4

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12	67 14 0	18 by 10	34 13 0
22 by 12	59 2 0	18 by 9	31 2 0
22 by 11	53 6 6	16 by 10	30 10 0
20 by 12	46 10 0	16 by 8	23 16 0
20 by 10	44 12 6		

NOTE : Breakage in transit, purchasers' responsibility.

PLUMBERS' BRASS WORK.

Delivered in London.

M.O.H.

S.D. BIB COCKS CRUTCH HEAD, FOR IRON.

½ in 66/– ¾ in. 108/– per doz.

TOILET BIB COCKS FOR IRON.

½ in. 114/– ¾ in. 171/– per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
72/–	111/–	189/–	312/–	468/–	840/– per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
102/–	150/–	312/–	408/–	642/–	1056/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
17/–	20/–	36/–	68/–	108/–	140/– per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
97/–	150/–	263/–	394/–	570/– per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
23/6	33/–	41/–	79/–	107/–	139/– per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
29/–	36/–	67/–	77/–	101/– per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ x 6 lb.	1½ x 6 lb.	2 x 7 lb.	3 x 7 lb.
Lead P.	71/–	89/–	143/–	219/– per doz.
Lead S.	87/–	108/–	176/–	291/– per doz.

SOLDER.—Plumbers', 3/4, Tinmen's 4/2, Blow pipe 4/3 per lb.

Copper Tubes 1/11½ per lb. Basis.
Brass Tubes .....2/0 per lb. Basis.
Basis prices are subject to extras.

PAINTS, etc.

		£ s. d.
Raw Linseed Oil (5 galls.)	per gallon	1 1 9
Boiled Linseed Oil (5 galls.) ..	"	1 2 3
Genuine White Lead (free kegs)	cwt.	8 3 6
Genuine White Lead Paint (tins free)	gall.	2 5 0
Genuine Red Lead	cwt.	7 18 9
Putty (free packages)	cwt.	3 0 0
Size XD quality.....	ffkn.	0 8 0

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

VARNISHES, etc.

		Per gallon.
Oak Varnish	Outside	1 6 0
Fine do.	"	1 16 0
Fine Copal	"	1 15 0
Pale Copal	"	1 12 8
Floor Varnish	Inside	1 10 0
Fine Pale Paper.....	"	2 1 0
Hard Drying Oak	"	1 10 0
Fine Hard Drying Oak	"	1 12 0
Fine Copal Varnish	"	1 13 6
Best do.	"	1 16 0
Best Japan Gold Size	"	1 15 0
Best Black Japan	"	1 8 6
Brunswick Black		1 4 6
Berlin Black		1 8 6
Knotting (patent)		1 12 6
French and Brush Polish		1 8 6
Liquid Dryers in Terebene		1 8 6

GLUE.

		£ s. d.
Best Scotch Glue	per ½ cwt.	4 9 9
Croid Glue	per lb.	9

* The information given on these pages has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(contd.)

See Note at top of preceding page.

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION. PER TON

R. S. Joists, cut and fitted	£30 10 0
Plain Compound Girders	£35 0 0
" " Stanchions	£42 10 0
In Roof Work	£55 0 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	26 17 6	½ in.	24 12 6
⅝ in.	26 2 6	⅝ in. to 2¾ in.	23 17 6
¾ in.	25 7 6		

W. I. TUBES.

TUBES AND TUBULARS.

Galv. Class A.	List price, less	12½	per cent.
" " B.	" "	7½	"
" " C.	" Nett.		
Black. " A	" less	33	per cent.
" " B	" "	22½	"
" " C	" "	15	"

C.I. HALF-ROUND GUTTERS.—London Works, per yd. in 6 ft. lengths.

	Gutters.	Nozzles	Prices ex Stop ends.
3 in.	2/5	2/2	7d.
3½ in.	2/8	2/5	7d.
4 in.	2/10	2/7	1/–
4½ in.	3/1	3/–	1/2
5 in.	3/5	3/3	1/3

O.G. GUTTERS.

3 in.	3/1	2/10	9d.
3½ in.	3/7	2/10	1/–
4 in.	3/7	3/–	1/2
4½ in.	3/8	3/5	1/3
5 in.	4/6	4/–	1/5

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Angles.	Branches
2 in.	5/–	2/7	3/10
2½ in.	5/3	3/–	4/6
3 in.	5/10	3/8	5/6
3½ in.	6/8	4/5	6/5
4 in.	7/8	5/3	7/8

NET PRICES.

Tonnage allowance—4-ton lots, 5 per cent. 2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES.—London Prices, ex stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches
2 in.	5/11	4/6	5/6
2½ in.	6/3	5/1	6/10
3 in.	6/11	5/6	8/3
3½ in.	7/10	6/10	9/6
4 in.	8/11	7/8	11/1

L.C.C. COATED DRAIN PIPE.

	cwt. qr. lb. per yard. in 9 fts.	Bends.	Branches
4 in.	1 1 17 16/3	12/3	21/6
6 in.	2 0 1 24/2	25/4	43/9

	Per ton basis in London. £ s. d.
IRON. — Staffordshire Crown, Merchant quality	29 5 0
IRON—Staffordshire Marked Bars	38 0 0
Mild Steel Bars	23 0 0
Mild Steel Hoops	24 7 6

	Ex Merchant's Stock per ton (two-ton) lots. £ s. d.
Soft Steel Sheets C.R. and C.A.—	
20 gauge	28 5 0
24 gauge	29 5 0
26 gauge	30 5 0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—	
20 gauge	37 17 6
24 gauge	39 12 6
26 gauge	41 17 6
Galvanised Flat Sheets, C.R. and C.A.—	
20 gauge	38 17 6
24 gauge	40 12 6
26 gauge	42 17 6
	Per ton. £ s. d.
Cut Nails, 3 in. and up, 1 ton lots	36 15 0

ALL NET.

METAL WINDOWS. — Standard sizes suitable for complete houses, included all fittings, painting two coats, and delivery to job, average about 5s. 0d. to 5s. 3d. per foot super.

LEAD, etc.

(Deliveries in London 5 cwts.)	Per ton. £ s. d.
LEAD.—Sheet, English, 3½ lb. and up	141 10 0
Pipe in coils	142 15 0
Soil pipe	145 15 0
Compo pipe	149 5 0

NOTE.—Country delivery, 10/– per ton extra, lots under 3 cwt., 4/– per cwt. extra and over 3 cwt. and under 5 cwt., 3/– per cwt extra. Extra if cut to size. Old lead, ex London area, per ton, £70 0. 0. Buyers pay carriage.

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY. CUT SIZES.

	Per ft. Super. d.
18 oz.	4½
24 oz. clear	5½
26 oz.	7½
32 oz.	9½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	7½
Rough cast, 3/16 in.	8½
Rough cast, ¼ in.	8½
Figure rolled, and Cathedral white	7½
Figure rolled, and Cathedral tinted	10½
Rolled sheet	6
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	11

Rolled plate is the same price as rough cast double rolled.

	Per ft. d.
Wire Cast, ¼ in. thick	9½
Georgian Wired Cast	10½

HOLLOW GLASS BLOCKS.	s. d.	
P.B. 2—5½ in. x 5½ in. x 3½ in.	2 6	each net.
P.B. 3—7½ in. x 7½ in. x 3½ in.	3 10	"
P.B. 32—7½ in. x 7½ in. x 3½ in.	3 10	"
Radiused Corner Brick to match up with—		
P.B. 2	4 6	"
P.B. 3	6 0	"
P.B. 32	6 0	"

TIMBER, SOFTWOODS AND HARDWOODS.

HOME GROWN TIMBER PRICES.—*See Statutory Rules and Orders*, 1947, No. 94, price 5d. net.

IMPORTED SOFTWOODS PRICES.—*See Statutory Rules and Orders*, 1947, No. 731, price 1s. 1d. net.

IMPORTED HARDWOODS PRICES.—*See Statutory Rules and Orders*, 1947, No. 1524, price 1s. 1d. net.

Note.—The above can be obtained from H.M. Stationery Office, York House, Kingsway, W.C.2.

TRADE NEWS

Change of Address.

The London Office address of Newman Industries, Ltd. (Electric Motor Division) is now 49 Park-lane, W.1. (Tel: Grosvenor 4905-9 (5 lines).

A Centenary Celebration.

Messrs. J. Manger and Son, Ltd., chemical manufacturers, recently celebrated their centenary with a party given by the directors to the staffs of all their companies.

Sales Manager Appointed.

Mr. D. P. Anderson, who was previously assistant sales manager to Messrs. D. Anderson and Son, Ltd., makers of Red Hand Roofing Felts, has been appointed sales manager.

AYGEE LIMITED WATerloo 6314
100, WESTMINSTER BRIDGE RD., LONDON, S.E.1

The Hall Mark AYGEE *of Craftsmanship*

LEADED LIGHTS DELIVERED IN

THREE WEEKS

FROM RECEIPT OF ORDER

ENGLAND'S LARGEST GLAZING CONTRACTORS

NEWS IN BRIEF

R.I.B.A. Inter. Examination.

The questions set at the Intermediate Examination held in November, 1948, are now on sale at the R.I.B.A., price 1s. (exclusive of postage).

R.I.C.S. Announcement.

The Council of The Royal Institution of Chartered Surveyors, acting upon the powers conferred on them by the bye-laws, have expelled from the Institution Mr. David Rhys Price, of Seaton, Devon.

Lectures on Timber.

The Timber Development Association, Ltd., has arranged a series of public lectures to be held at the Fyvie Hall, Polytechnic, Regent-street, W.1, on the following dates:—Monday, February 7; Thursday, February 17; Monday, February 28; Thursday, March 10; Monday, March 21.

The Late Mr. S. R. Clay.

Mr. Stanley Richard Clay, M.C., who passed away in Johannesburg, where he was to visit the company's South African office, on January 22, was a director of Broom and Wade Ltd., engineers, High Wycombe. He joined the firm in 1925 as sales manager. He became Sales Director of the firm in October, 1927, since which date he had been in complete charge of their sales throughout the world.

Timber from Finland.

Discussions between a Finnish Trade Delegation and officials of the United Kingdom Government were concluded in London on January 26. The United Kingdom (states the Board of Trade) expects to import from Finland increased quantities of timber, pulp, and newsprint. In addition Finland will continue to export to the United Kingdom other products of her woodworking industries at least to the level reached in 1948.

Directed Labour Rejected.

A Labour motion advocating direct labour for the Northern Ireland Housing Trust was rejected by the House of Commons at Stormont, Belfast, by 19 votes to four. Mr. R. Getgood, who proposed the motion, said that neither private enterprise nor the local authorities had been able to produce the houses so urgently needed, especially in Belfast. The Government spokesman, Capt. Terence O'Neill, said direct labour would dislocate the building industry just when the wheels were beginning to turn again. He pointed out that the Labour Government in England had given no support to the principle of direct labour in the industry.

Standardisation of Taps.

The British Waterworks Association announces that it has decided to withdraw all the "Swan" licences on December 31, 1949, and thereafter no fittings made to M.O.H. Specification will be permitted to be marked with the "Swan" mark of the Association. This completes the standardisation of taps, and for the future, the water supply industry will regard taps made to B.S.1010:1944 as standard. Accordingly, the British Waterworks Association's J.C.S.W.R. Specification for taps was amended on January 1, 1948, so as to be identical with B.S. 1010. 1944, issued by the British Standards Institution. The Association has, by agreement with the Institution, arranged for Joint J.C.S.W.R. and B.S.I. licences to be issued to approved manufacturers of taps and cocks made to B.S. 1010:1944.

The Scottish Builder

SCOTTISH REGIONAL PLANNING

Sir Frank Mears's Report

THE recommendation that there should be no new towns on the English scale set up in Central and South East Scotland, but that the facilities provided under the New Towns Act should be granted to groups of towns and villages, is made in the survey of that area prepared for the regional planning committee by Sir Frank Mears. The report, which took five years to complete, has just been published.

It submits that the New Towns Act be applied to Scottish conditions in such a way as to promote the well-being of groups of communities, and adds:—"Under this scheme each new town of moderate size would be linked with one or more existing settlements so that the whole would embody a total population large enough to make possible the economic provision of social and industrial facilities on a scale not formerly within the powers of local authorities, working upwards from the limited scope of housing schemes. Such groups would contain a total of 20,000 to 30,000 people, with, in addition, those living in a number of villages in the neighbouring countryside who would benefit too through the proximity of an enlarged market for their produce.

"Existing small burghs and villages frequently form loosely knit groups," writes Sir Frank, "which may be related in the manner outlined above without losing their individuality. The aim is to create 'constellations' in which each member maintains its characteristic way of life, as opposed to the conception of a 'sun' and its dependent 'satellites' with the sun permanently dominating the scene."

It would be detrimental, the report declares, to set up new towns on the English scale. The expansion of mining activity over a wide area in the East of Scotland would indicate the need for such constellations with the advantage that all would benefit in ways beyond their individual means.

With this development in mind, Sir Frank has drawn up tentative groupings of towns and villages. The character and scale of these would be largely determined by varying local conditions.

"Larger key towns or district capitals which, too often in the past, gained advantages at the expense of smaller communities should regard themselves," he concludes, "as partners of those within their sphere of influence. The conventional attitude of competition for population and industry should give way to a spirit of co-operation and for gracious development; and thus problems of loss or gain to individual authorities through reduction of density on the one hand, or excessive expansion on the other, would be solved by common interest in the well-being of a 'constellation' as a whole."

EDINBURGH SCHOOL OF ARCHITECTURE

Influx of Students

The reputation of the School of Architecture in the Edinburgh College of Art ranks so high that the large number of applications for admission from London and the South is embarrassing the Board of Management because of the School's policy to give preference to applicants from the Edinburgh area. This is stated by the Principal of the College, Mr. Robert Lyon, in the report of the Board for the session 1947-8. Despite the fact that the size of the school was again increased, reaching over three times its pre-war strength, it was found necessary drastically to control the new intake, and out of 200 applications received it was only found possible to admit 17 new students.

In order to meet the demand for additional staff in town planning offices, a part-time course has been instituted in addition to the full-time course, now extended to five terms.

Among the achievements of the school during the year was to have four out of seven finalists for the Rome Scholarship (not yet adjudicated) and three out of 15 finalists for the R.I.B.A. Tite prize. (Since the report was issued the "Tite" prize has been won by a student from the college, Mr. A. C. Mackintosh.)

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1 1949. Every effort is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification — A Craftsmen.... 2/10 — Labourers.... 2/3½

Aberdeen .....A	Dumfriesshire ....A	Inverness .....A	Perthshire .....A
Ayrshire .....A	Dundee .....A	Inverurie .....A	Peterhead .....A
Banff .....A	Dunoon .....A	Kincardineshire ..A	Renfrewshire .....A
Berwickshire .....A	East Fife .....A	Kinross-shire .....A	Rothesay .....A
Bridge of Allan....A	East Lothian .....A	Lanarkshire .....A	Roxburgshire ....A
Broughty Ferry....A	Edinburgh .....A	Midlothian .....A	St. Andrews .....A
Clackmannanshire A	Fifeshire .....A	Monifieth .....A	Selkirkshire .....A
Doune.....A	Forfarshire .....A	Moray and Nairn ..A	Stewartry .....A
Dunblane .....A	Glasgow .....A	Newport .....A	Stirlingshire .....A
Dunbartonshire....A	Greenock .....A	Peeblesshire .....A	Stornoway .....A
Dumfries .....A	Hamilton .....A	Perth .....A	Tayport .....A
			West Lothian .....A

The Scottish N.J.C. award on which this is based provides for variation to current rates of Apprentices and Trainees' wages, which will be increased according to scale.
The Information given in this table is copyright.
Painters' rates: 2/10 Grade A; 2/9 Grade B. (Grade B towns are Banff and Moray and Nairn.)

EDINBURGH NEW TOWN PLAN

Its Implications

"To-day 262,700, or 60 per cent. of the resident population of Edinburgh, are living under one or more of the following forms of conditions: excess number of houses per acre; mix up of houses with industry; sanitary substandard character or unfit dwellings; and too small dwellings for the size of the family." This comment was made by MR. D. W. PLUMSTEAD, Town Planning Officer for Edinburgh, when he gave a lecture to the Institute of Public Administration, in Edinburgh, on the new town plan.

The plan, he continued, was an advisory one to assist the Edinburgh Corporation in preparing their development plan for the City in connection with their statutory duties. It set before them a collection of ideas suggesting solutions, interpreting population requirements according to certain standards of living. These requirements were, in total, enormous and would not be provided in a decade, mainly because of previous unenlightened developments. The plan, therefore, was also in the nature of a programme. It could be reviewed from time to time, as the new Act prescribed, to make any adjustments to the whole picture portrayed as desired.

The programme, said Mr. Plumstead, could be split up into periods of development, each dovetailing into each other, the whole taking, roughly, fifty years to achieve.

Housing under the 1935 survey considered that 65,000 persons were living in overcrowded conditions and required fresh accommodation for reasonable living. Delegation of house accommodation was a matter for local and national policy, which inevitably impinged upon planning. It was no use robbing Peter to pay Paul. "If you take land and build houses for those not living in slums and overcrowded areas," said Mr. Plumstead, "the city will be prevented, in all probability, from building houses to relieve slums and overcrowding conditions in places most convenient to the place of work."

The size of the population, and, therefore of the city, also depended upon the policy adopted. It was their job as planners to emphasise planning limits for the city.

OBITUARY

G. D. Macniven, F.R.I.B.A.

We regret to record the death at his home in Edinburgh of Mr. George Donaldson Macniven, F.R.I.B.A., formerly chief architect of the Department of Health for Scotland. He was 70. A pupil of the late Sir George Washington, Mr. Macniven studied at the Edinburgh School of Applied Art and for a time was partner in an Edinburgh firm of architects before joining the Local Government Board for Scotland as temporary architect in 1915.

After he had supervised the erection of houses for the Admiralty and the Ministry of War during the 1914-18 war, he became established in the service in 1918. When the Board became the Department of Health for Scotland in 1929 he was made Deputy Chief Architect and Hous-

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(3) Average relative proportion of each trade to a complete building operation, with ratios of Labour to Material in each Trade and approximate percentage increases for the respective years, 1937-1946.
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ing Commissioner, and became Chief Architect in 1942. On his retirement he became consulting architect to the Scottish Veterans' Garden City Association.

A 4,000-HOUSE CONTRACT

Faced with a threat to their existence through shortage of work, the Cruden Housing Group, which have had to dismiss 2,000 of their 4,000 workers during the past three months, recently appealed to the Lord Advocate, Mr. John Wheatley, M.P., to find a solution to their difficulties. Mr. Wheatley has recently addressed a meeting of about 300 Cruden workers in the Musselburgh factory, and while giving an assurance that he would take up the question of an allocation of 280 houses to be approved by the Scottish Special Housing Association, he made it quite clear that the Government did not intend to depart from its policy of allowing local authorities to choose their own builders.

The announcement that the Blackburn company at Dumbarton had been given an order for 4,000 houses in no way indicated a departure from the Government's policy, he said.

The Government had been perturbed not only about the general position of housing but about tuberculosis in Scotland, he continued. They were anxious, in view of the incidence of tuberculosis, to get an addition to the existing housing programme. The 4,000 houses, which Blackburn were to make, were specially for tubercular people, or areas in which the incidence of tuberculosis was high. Permission to build them was given on condition that they did not interfere with the existing housing programme, and that they were provided by one firm which would be in a position to have the bulk of them erected in 1949.

Mr. Wheatley had to face questions from workers who were not convinced that there was a good reason why the 4,000 "exception" houses contract should be given to only one firm. Asked the extent of Scotland's allocation of houses to be started in 1949, Mr. Wheatley said that depended on the number of houses that were completed. Their policy was to ensure a balanced building programme, in which building would not be held up by shortages of materials.

Prestressed Concrete Building

Preliminary work has begun on the stationery office for the Ministry of Works at Sighthill Industrial Estate, Edinburgh. The building, which is to be of three storeys, will use prestressed concrete, and will be one of the first of its kind to be erected in this country. The general contractors are Richard Costain, Ltd.

REVIEW OF WAGES

Craftsmen's Wages up by ½d.

THE Scottish National Joint Council for the Building Industry on January 20 last considered the average figure of the Ministry of Labour's Retail Prices Index for the twelve months of 1948 in accordance with the terms of the wage settlement of November 17, 1947, and resolved as follows:—"That the average figure of the Retail Prices Index of the Ministry of Labour and National Service for the 12 months of 1948 being 107 5/12, and this being between the figures of 106 and 109, the rate for craftsmen falls to be increased by ½d. per hour and the rate for labourers to be adjusted to 80 per cent. of that rate, and that these changes shall take effect as from February 1, 1949."

Trainees' Wages.

Resulting from the above decision, the following increases fall to be paid:—

Trainees (during continued training): First 8 weeks—85 per cent. of craftsmen's rate, viz., 2s. 5d. per hour; next 26 weeks—90 per cent., 2s. 6½d. per hour; and last 26 weeks—95 per cent., 2s. 8½d. per hour.

Apprentices: First year—One-quarter of the craftsmen's rate, 31s. 2d. per week; second year—One-third, 41s. 6½d.; third year—One-half, 62s. 4d.; fourth year—Two-thirds, 83s. 1½d.; and fifth year—Three-quarters, 93s. 6d.

Female Labour: To operatives on Craft operations—an increase of ½d. per hour; to operatives on labouring—an increase of ½d. per hour.

NEW BUILDINGS

Aberdeen.—T.C. plans 464 houses for the year. T.C. plans 200 Blackburn houses.

Gambusiang.—National Coal Board to erect new screening plant, sub-station and offices at Greenlees Mine, for which the architect is Alexander Hinchelwood, 36, Robertson-st., Glasgow.

Edinburgh.—Warrant granted to Distillers Co., Ltd., for alterations at 4 and 6, Torphicen-st. Plans by General Works Dept., The Distillers Co., Ltd., 64, Waterloo-st., Glasgow. Cost £6,000. Plans passed by Dean of Guild for erection of factory at Gorgie Station, Gorgie-rd., for Builders' Supply Co., Ltd. Cost £5,000. Architect, Ian T. Brand, 53, Forrester-rd. Corstorphine.

Edinburgh.—Reconstruction of Rio Cinema, Craigmillar, destroyed by fire, approved by M.o.W. (Scotland).

Fifeshire.—At a site at Dunfermline, the Veteran Garden City Association, Ltd., 5, Manor-pl., Edinburgh, to erect 10 cottages at £17,000.

Newmains.—Lanarkshire C.C. to erect central kitchen and dining department, etc., at School-rd., for which the architect is William Watt, Albert-rd., Motherwell.

Perth.—T.C. to build 60 Blackburn houses at Letham-rd. estate.

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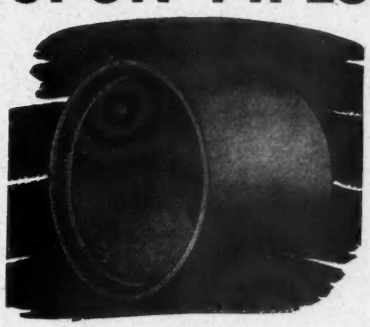

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PUBLIC APPOINTMENTS

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CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

FEBRUARY 9.

†***West Sussex C.C.**—(1) Repairs, alterations and adaptations to premises at Littlegreen House, Compton, nr. Chichester (Job. No 1,348); (2) repairs, alterations and adaptations to premises at No. 15, Whyke-rd. (Job No. 1,496). F. R. Steele (F.), County A.

FEBRUARY 10.

†**Barking T.C.**—186 flats at Longbridge-rd. estate. Boro' A., Town Hall.

†***Higham Ferrers T.C.**—16 houses at High-st. estate. Gotch, Saunders & Surridge, Chartered Architects, Bank-chbrs., Kettering. Dep. £1.

†***Ludlow R.D.C.**—14 houses at Cleobury Mortimer. A. E. Wilson, F.I.Q.S., Broadgate-chbrs., Broad-st., Ludlow. Dep. £2 2s.

FEBRUARY 11.

†***Blackpool C.B.**—74 houses, Contract No. 2, at Mereside estate. B.S.

†***Essex C.C.**—Farm buildings and farm cottage at Northlands Farm, Laindon. J. Solomon, F.R.I.C.S., County Land Agent, 69, Duke-st., Chelmsford.

†***Swindon and District Hospital Management Committee.**—Conversion of Scarletina Pavilion into Isolation Cubicle Block at Isolation Hospital, Gorse Hill. Boro' A. & Planning Officer, Civic Offices.

FEBRUARY 12.

Consett U.D.C.—36 houses at Bradley-sq., Leadgate. J. J. Eltringham, Derwent-st., Blackhill. Dep. £3 3s. Tenders by March 7.

FEBRUARY 14.

†***Gloucester R.D.C.**—20 houses and outbuildings at Alkerton, Eastington. C. D. Carus-Wilson, M.C. (F.), Hardwicke, Glos. Dep. £3 3s.

†**Staffs C.C.**—Three pairs of police houses at Doxey-rd. C., County-bldgs. Dep. £2 2s.

Tavistock U.D.C.—Six bungalows at Crelake estate, Drake-gdns. S., Council-chbrs., Drake-rd. Dep. £2 2s.

FEBRUARY 15.

Shardlow R.D.C.—26 houses at Spondon. Browning & Hayes, Architects, 11, Irongate, Derby. Dep. £2 2s.

Shardlow R.D.C.—12 houses at Breaston. Browning & Hayes, 11, Irongate, Derby. Dep. £2 2s.

†***West Sussex C.C.**—Minor alterations, repairs and external decorations at Aldwick House, Bognor Regis. (Job. No. 1,628.) F. R. Steele (F.), F.R.I.C.S., County A., County Hall, Chichester.

FEBRUARY 16.

†***Norfolk E.C.**—New lavatories at London-rd. Infants' County Primary School, Dereham. F. G. Limmer (F.), County Ed. Offices, Staceyrd., Norwich. Dep. £2 2s.

FEBRUARY 17.

Haverfordwest R.D.C.—76 houses at various sites. A. J. Davies, S., 10, Picton-pl. Dep. £2 2s.

FEBRUARY 18.

Torrington R.D.C.—Six houses at 2 sites. Oliver & Sons, Queen Anne's-chbrs., Barnstaple. Dep. £3 3s.

†***Wandsworth B.C.**—Two-storey block of 21 aged people's dwellings at Iron Mill-pl. T.C.

FEBRUARY 19.

†**Elham R.D.C.**—Six houses at Old-rd. C., Council Offices, Lyminge, Kent. Dep. £2 2s.

Glamorgan C.C.—Kitchen and dining-room at Coedffranc County Primary School. L. R. Gower, Architect, County Hall, Cardiff. Dep. £2 2s.

North Cotswold R.D.C.—Six houses at Longborough. Thomas Rayson (F.), 29, Beaumont-st., Oxford. Dep. £2 2s.

Ongar R.D.C.—Demolition of 4 cottages and erection of 3 houses at Tort Hill, Stanford Rivers. E. & S., Council Offices, Chipping Ongar. Dep. £2 2s.

FEBRUARY 21.

***Barking T.C.**—Six shops with maisonettes over at London-rd. Boro' A., Town Hall (above date is for return of application forms).

Barnsley T.C.—18 houses at Athersley estate. B.E., Town Hall. Dep. £2 2s.

†*Durham C.C.—Reinstatement works and adaptations and alterations at Neville's Cross Training College and adaptations and alterations at Chester-le-Street Modern School. County A., Court-la.

†*Durham C.C.—Erection of M.O.W. hutting at various schools. County A., Court-la.

Grimsby E.C.—First phase construction of Carr-la. Primary Schools off Colin-ave. B.E. & S., Municipal Offices. Dep. £5.

†*Peterborough Joint Education Board.—First instalment of Peterborough Technical College. David Jenkin, B.A. (F.), 49, Welbeck-st., W.1. Dep. £2 2s. Tenders by March 28.

FEBRUARY 22.

Bridgnorth T.C.—Completion of 9 houses at Sydney Cottage estate. B.S., College House. Dep. £2 2s.

FEBRUARY 23.

*Royal Leamington Spa T.C.—50 houses in two contracts at Kingsway estate. Director of Housing, 7, Regent-gr. Dep. £2 2s. each contract.

FEBRUARY 24.

*Durham C.C.—Two pairs of agricultural workers' houses at Houghall, nr. Durham. County A., Court-la.

*Ealing T.C.—Four shops and 8 flats at South-East Northolt. C. W. Seddon, M.I.C.E., B.E., Town Hall. Dep. £5 5s.

FEBRUARY 25.

*Chesterfield R.D.C.—34 houses at 5 sites. J. B. Wikeley, M.Eng., E. & S., Rural Council House, Saltergate, Chesterfield. Dep. £2 2s.

†*Epping U.D.C.—Six aged persons' bungalows and one pair of houses at Centre-dr. S., 91, High-st. Dep. £2 2s. Tenders by March 22.

FEBRUARY 26.

*Gravesend T.C.—48 flats at Parrock Farm estate. B.E. & S., 6, Woodville-ter. Dep. £2 2s.

FEBRUARY 28.

*Bexhill T.C.—20 houses at Ninfield-rd. B.E. & S. Dep. £2 2s.

*Grimsby C.B.—First phase of construction of Carr-la. primary schools, off Colin-ave. J. V. Oldfield, B.E. & S. Dep. £5.

*Harrow U.D.C.—132 flats at Alexandra-ave Frederick Gibberd (F.), 35, Gordon-sq., W.C.1. Dep. £2 2s.

Hyde T.C.—56 3-bedroom houses and 30 units of 2- and 1-bedroom flats at Harbour Farm estate. B.S., Town Hall. Dep. £2 2s.

MARCH 1.

Stratford-upon-Avon T.C.—20 houses at Clopton estate. B.E., Municipal Offices. Dep. £2 2s.

MARCH 4.

*Sunderland C.B.—Erection of Hill View Primary Infants' School and kitchen dining-room at Hill View estate. Matkin & Hawkins, Architects, Barclay-chbrs., Fawcett-st. Dep. £2 2s.

MARCH 5.

Church U.D.C.—14 houses. S., Council Offices. Dep. £2 2s.

MARCH 7.

*Weymouth and Melcombe Regis T.C.—13 houses at Westhaven estate, Abbotsbury-rd. B.E. & S., 6, Pulteney-bldgs. Dep. £2 2s.

MARCH 10.

*Stourbridge T.C.—140 houses and 20 bungalows at Norton estate, Part IIa. B.E. & S. Dep. £3 3s.

NO DATE.

*Saffron Walden R.D.C.—Eight houses at Rickling and 8 at Gt. Sampford. A. W. Overall, C., Debden-rd.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

FEBRUARY 15.

*Halifax C.B.—External painting of houses. B.E. Dep. £1 1s.

FEBRUARY 16.

Heywood T.C.—B.S. (Materials).

FEBRUARY 17.

Isle of Ely C.C.—County S. (Materials).
Poole C.B.—B.E. & S. (Materials).

FEBRUARY 18.

Southampton C.B.—B.E. (Materials).

FEBRUARY 19.

Ches. C.C.—County S. (Materials).
Irlam U.D.C.—E. & S. (Materials).
Littleborough U.D.C.—E. & S. (Materials).
Swadlincote U.D.C.—E. & S. (Materials).

FEBRUARY 21.

Bacup T.C.—Acting B.E. (Materials).
Colne T.C.—B.E. & S. (Materials).
Cudworth U.D.C.—E. & S. (Materials).
East Riding C.C.—County S. (Materials).
Leatherhead U.D.C.—E. & S. (Materials).
Wolverhampton C.B.—B.E. (Materials).

FEBRUARY 22.

Shoreditch B.C.—B.S. (Materials).

FEBRUARY 23.

Sale T.C.—B.S. (Materials).
Slough T.C.—B.E. (Materials).

FEBRUARY 24.

Hereford T.C.—City S. (Materials).
Turton U.D.C.—E. & S. (Materials).

FEBRUARY 26.

Sevenoaks U.D.C.—E. & S. (Materials).

FEBRUARY 28.

Bucks C.C.—County S. (Materials).
Derbys C.C.—County S. (Materials).
Shrewsbury T.C.—B.S. (Materials).
Widnes T.C.—B.E. & S. (Materials).

MARCH 1.

Acton T.C.—B.E. (Materials).
Maidstone T.C.—B.S. (Materials).

MARCH 2.

Macclesfield T.C.—B.E. (Materials).

MARCH 5.

Clayton-le-Moors U.D.C.—S. (Materials).
Morley T.C.—B.E. (Materials).

ROADS, SEWERAGE AND WATER WORKS

FEBRUARY 14.

Southampton C.B.—Roads and sewers at Beechwood site. B.E. & S. Dep. £3 3s.
†Southampton C.B.—Roads and sewers at Harefield site. B.E. & S. Dep. £3 3s.

FEBRUARY 18.

Doigelley R.D.C.—2,353 yds. of 3 in.-12 in. asbestos cement pipes with construction of one covered and one open reinforced concrete reservoir, filter house, etc. Wallace Evans & Partners, 13, Victoria-rd., Penarth, Glam. Dep. £5.

Romford T.C.—Making-up streets at Paddock estate. B.E. & S., Town Hall. Dep. £2 2s.

FEBRUARY 19.

Godalming T.C.—Laying and jointing of new water main at Broadwater estate, Farncombe. Water E., Municipal-bldgs. Dep. £2 2s.

FEBRUARY 21.

Market Harborough U.D.C.—Roads and sewers at Southern estate. E., Council Offices. Dep. £3 3s.

FEBRUARY 22.

*Ilford T.C.—Site preparation, etc., at Parkhill Primary School. B.E. Dep. £1 1s.

Ilford T.C.—Construction of Ravensbourne-gdns. and The Glade. B.E. & S. Dep. £2 2s.

FEBRUARY 24.

*St. Ives R.D.C.—Roads and sewers, etc., at housing site. Lea, Milner, Doe & Wardley, 4, Market-hill, Huntingdon. Dep. £2 2s.

FEBRUARY 25.

*Melksham U.D.C.—Roads and sewers at Stratton's land housing site. D. H. McKerchar, E., Architect & S. Dep. £3 3s.

Oxon C.C.—Surface dressing of County roads. County S., 8, New-rd., Oxford.

FEBRUARY 28.

Mablethorpe and Sutton U.D.C.—Construction of Trusthorpe sewerage. E. & S., Council Office. Dep. £3 3s.

MARCH 2.

Millom R.D.C.—Roads and sewers at Settle-st. and Salthouse-rd. S., Council Offices. Dep. £2 2s.

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MARCH 8.

South Kesteven R.D.C.—8¾ miles of stoneware and steel sewers, 7 in. to 15 in. dia., laying of house connections; erection of six sewage pumping stations; laying approx. 5¼ miles of 5 in., 6 in. and 10 in. dia. spun-iron rising mains and construction of sewage treatment works, etc. G. B. Kershaw & Kaufman, 1, Victoria-st., S.W.1. Dep. £5 5s., payable to R.D.C.

GENERAL BUILDING WORK

(LONDON)

Barnet.—KITCHEN AND DINING ROOM.—Herts. C.C. to build kitchen and dining-room at Queen Elizabeth's Grammar Sch., Barnet, at £10,000.

Bermondsey. — FLATS. — L.C.C. sanctioned borrowing by B.C. of £24,793 for 12 municipal flats at Adams-gdns. estate. C.A., Mr. C. J. Burnett (F.).

Finchley.—FLATS.—M.H. sanctioned erection of 24 flats at Granville-rd. by B.C. Chief Architect of Housing and Town Planning Dept., Mr. J. R. Southcombe (L.).

Leyton.—HOUSING.—B.C. to make compulsory purchase order for 1-9 and 2-8, Burgess-rd. for housing purposes.

Plumstead.—TEMP. HOUSING.—Woolwich B.C. to acquire following sites: 128, 130, Eglinton-rd.; 48, Heavitree-rd.; 368-398 (even), Plumstead High-st.; site of Anglesea House, Red Lion-la.; 53, 55, 57 and 63-71 (odd) Robert-st.; 11, Woodhurst-rd.

Richmond.—CHURCH.—R.C. church to be erected at Sheen-rd., at £15,000, to plans by H. S. Goodhart-Rendel & Partners, 13, Crawford-st., W.1.

St. Marylebone.—FLATS.—B.C. to make compulsory purchase order for Hamilton-ter. site for erection of 76 flats.

St. Marylebone.—HOUSING.—B.C. to make compulsory purchase order for Queen's-ter. site, St. John's Wood.

St. Pancras.—HOUSING.—L.C.C. sanctioned loan of £14,000 to B.C. for erection of dwellings at Peckwater-rd.

Tottenham.—TEMP. HOMES.—T.C. seeking loan sanction from M.H. for £26,000 to buy land for temp. homes.

Westminster.—COMMUNITY CENTRE.—B.C. to apply to L.C.C. for sanction to borrow £101,335 for acquisition of 25, 27, 29, 31, Marsham-st. and 46, 48, Tufton-st., for adaptation as community centre.

Woolwich.—TEMP. HOUSING.—B.C. to acquire 21-28 (cons.), Greenlaw-pl.

Woolwich.—HOUSING.—B.C. propose 12 houses on Coldharbour estate by Apprentice Master scheme.

(PROVINCIAL)

Amesbury.—R.D.C. to erect 36 houses at Holder's-rd.

Billingham-on-Tees.—U.D.C. submitting to county planning offices for approval, layout plans by S., J. H. Hill, for development of Roseberry-rd. area. U.D.C. allocated 150 houses for year (24 by private enterprise). U.D.C. to erect 68 houses.

Bolden.—U.D.C. to build 94 houses at Whitburn. Plans by S., N. Hindmarsh, Council Offices.

Broomhill.—Pithead baths to be built. Plans by F. G. Frizzell, Miners' Welfare Commission, 1-9, Great Portland-st., W.1.

Bury.—Crown Brewery Co., Ltd., Rochdale-rd., propose hotel, junction of Wellington-rd. and Market-st.

Durham.—City council approved site at Sunderland-rd. estate for public-house, for Westoe Breweries, Ltd. Plans approved for alterations to St. Chad's College for Durham Colleges.

Eastburn.—Village Hall B.C. propose village-hall.

Glendale.—Reavell & Cahill, Lloyds Bank-chbrs., Alnwick, are architects for erection for R.D.C. of 44 houses and 12 lock-up garages.

Liverpool.—T.C. to acquire 2,500 acres for erection of 25,000 houses.

Manchester.—T.C. approved:—Extensions to physics research laboratories, University, Oxford-rd. and Coupland-st., Chorlton-upon-Medlock, for Thos. Worthington & Sons (FF.), 178, Oxford-rd., Chorlton-on-Medlock; houses, Brooklands-rd. and Edenfield-rd., Crumpsall, for Silver & Cohen, Drury & Gomersall (L.), 15, Oxford-rd., Chorlton-upon-Medlock; houses, Kenmore-rd. and Netherwood-rd., Northenden, for H. Richards, Brazier & Hartington (F.), 7, Market-st., Altrincham. Barlow & Jones, Ltd., mfrs. and merchants, Brazil-st., propose adaptation of Manchester House, 86, Portland-st., for head offices and warehouse. T.C. propose ambulance depot at Wythenshawe at £13,500.

Mansfield.—T.C. approved: Additions to factory, Belvedere-st., for Foister, Clay & Ward, Ltd.; extensions to factory, Harrington-st., for Mansfield Hosiery Mills, Ltd.

Northallerton.—Newcastle Hospital Board to carry out reorganisation scheme at Friarage Hospital, Brierley, Syme & Leckenby, of York, architects.

Oldham.—T.C. approved:—Alterations to Gardeners' Arms, 228, Middleton-rd., for W. T.

Rothwell, Ltd., Heath Brewery, Oldham-rd., Newton Heath, Manchester 10; works, Hollinwood reservoir site for Faulkner & Mann. T.C. propose 450 houses (90 by private enterprise). T.C. propose:—Nursery block at Fir Bank Children's Homes, Royton; nurs. sch. at Primrose Bank housing estate.

Peterhead.—Extensions to kippering factory at Longate proposed by John Woodger & Sons, Ltd., at £11,200.

Radcliffe.—T.C. approved: Extensions, Bradley Fold Works, Little Lever, for Dobson & Barlow, Ltd.; day nursery, Victoria-st., for Lancs C.C.; additions to works, Milltown-st., for J. Hutton.

Rochdale.—T.C. approved: Houses, Meadway, for G. Mort.

Rochdale.—T.C. approved:—Extensions to works, Mellor-st.; 6 houses, War Office-rd., for S. Porritt & Sons, Bamford Mills, Norden; canteen at works, Allen-st., F. S. Ratcliffe (Rochdale), Ltd.; extensions, Spring Works, Mere-la., for Robert Riley, Ltd.; extensions, Belfield Works, Kenworthy-st., for Wm. Tatham, Ltd. T.C. propose:—Houses at Castleton; 40 police houses; adaptation of Everleigh for home for aged people.

Salford.—T.C. approved: Additions to factory, Flax-st., for William C. Jones, Ltd.; extensions to factory, rear of 105-107, Broughton-la., for Unicream, Ltd.; additions to factory, 192, Broughton-la., Broughton, for S. Langetter, 1, Islington-sq., Crafts Textile Engineers, Ltd.

Scarborough.—T.C. proposes 58 houses at High Eastfield site. T.C. allocated 200 houses for year (30 by private enterprise). T.C. to erect 4 houses and 6 shops at Barrowcliff Estate. F. Baker, York-pl., Scarborough, is architect for alterations at North-pl, for Scarborough & Whitby Breweries, Ltd. Alderson & Allen, St. Nicholas-st., prepared plans for dining-room at Grand Hotel, for Spiers & Pond, Ltd. Boro' E. (H. V. Overfield) prepared draft plans for motor-coach station at Valley-rd.

South Shields.—F. W. Woolworth & Co., Ltd., propose permanent stores at South Shields. In the meantime, they intend to erect temporary building at £8,500. Plans by headquarters' staff at Liverpool.

Sunderland.—Newrick & Blackbird, John-st., are architects for jun. sch.

Sunderland.—J. W. Taylor & Son, Northcliffe House, Gallowgate, Newcastle-on-Tyne, are architects for alterations to Bridge Hotel vaults.—J. Potts & Son, 57, John-st., prepared plans for alterations to Seamen's Mission, Tatham-st.—Sunderland Gas Co., Fawcett-st., to build gasholder and extend retort house at Hendon gasworks.—S. W. Milburn & Partners, Esplanade, Sunderland, are architects for works canteen at Bloomfield-st.—National Galvanisers, Ltd., Pallion-rd., are to carry out alterations.—G. T. Brown & Son, Fawcett-st., prepared plans for alterations at Fulwell-rd. for British Ropes, Ltd.

Urmston.—U.D.C. approved: Additions to works, Tenax-rd., Trafford Park, for T. F. Freedland, Ltd.; additions to works, Trafford Park-rd., Trafford Park, for Carborundum, Ltd.; additions to works, Ashburton-rd., Trafford Park, for United Storage Co., Ltd.

Whickham (Co. Durham).—Hetherington & Wilson, County-chbrs., Westgate-rd., Newcastle-on-Tyne, are architects for proposed new inn at Swalwell, for James Deuchar, Ltd., wine and spirit merchants, Eldon-sq., Newcastle-on-Tyne.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government Departments*.

Abergavenny.—28 houses at Llwynu Farm site, for T.C. B.E. & S., Town Hall: *C. Price & Sons, Neville-st., Abergavenny, £32,000 (24); *T. Williams & Son, Mill-st., Abergavenny, £5,400 (4).

Abermule.—County primary school for Montgomeryshire E.C. H. Carr, County A., County Offices, Welshpool, Mont: *Jones & Leach, Ltd., Llanidloes-rd., Newtown, Mont, £32,562.

Bolton.—16 houses at Ainsdale-rd. site, for T.C. C. Herbert, M.Inst.C.E., B.E.: *Apprentice Trainees' Scheme, Bolton C.B.

Brandon & Byshottles.—24 houses at Sawmill-la., Brandon, and 28 at Broom-la., Ushaw Moor, for U.D.C. Architect, F. Hedley: *Direct Labour.

Canterbury.—Temporary classroom block at Canterbury County Technical Girls' School, Barton Court. L. Hugh Wilson (A.), A.M.T.P.I., City A., Municipal-bldgs. Quantities by Widnell & Trollope, Broadway Court, Broadway, S.W.1: *Operative Builders & Decorators, Ltd., Park-la., Birchington, Kent, £23,813.

Chesterfield.—Works for T.C. W. S. Wilson, M.B.E., M.I.Mun.E., B.S., Town Hall. 20 houses at Grangewood site: *A. Heath, Old-rd., Brampton, Chesterfield, £29,124; Central Civic Restaurant: *W. Revill & Sons, Ltd., 155, Boythorpe-rd., Chesterfield, £12,442.

Durham.—Alterations, etc., at Ministry of National Insurance offices: *F. W. Goodyear & Sons, 60, Claypath, Durham.

Durham.—Completion of new buildings at Crook New Modern County School, for C.C. County A., G. R. Clayton, Court-la., Durham: *G. Stephenson, Bishop Auckland, £37,764.

Glendale.—Four houses for R.D.C. Architects, Reavell & Cahill, Lloyds Bank-chbrs., Alnwick: *E. Carse & Son, Ltd., Oldgate, Morpeth.

Haverfordwest. — New Modern Secondary School, for Pembrokeshire C.C. Walter Barrett, M.B.E. (A.), County A., Haverfordwest. Main school contract, stages 1 and 2:

Demolition & Construction Co., Ltd., Cardiff	£262,434
Richard Costain, Ltd., London ...	261,600
William Cowlin & Son, Cardiff ...	241,109
Gee, Walker & Slater, Ltd., London ...	240,627
R. E. Richards, Ltd., Haverfordwest ...	236,578
Hadsphaltic Construction Co., Pembroke Dock	233,601
*Gibson & King, Milford Haven	221,000

Steelwork, stages 1 and 2: *Dawnays, Ltd., Swansea, £13,376. Preparation of site: *Huzzey, Egan & Pickmere, Pembroke, £850; Site road: *Hadsphaltic Construction Co., Pembroke Dock, £2,843.

Haverhill.—24 houses at Mill Field site, for U.D.C.: *J. T. Archer & Co., Ltd., £1,325 per house (negotiated price).

Leeds.—52 houses at Newton Lodge estate, for T.C.: ‡Wm. Thompson & Sons, Leeds, £70,175.

Liverpool.—Works, for City Council: 160 houses at Chelwood-ave., *The Unit Construction Co., Ltd., 113, Bentham-dr., Liverpool 16, £217,487 (subject to M.H. approval); extensions at Kingsthorne-rd. County School, Hunt's Cross, *C. J. Doyle & Sons, Ltd., Mount Pleasant, Liverpool 3, £16,421; alterations to houses, "Beechwood," "Beechfield," "The Dell" and caretaker's cottage at Beechwood-rd., to form special schools, *Hale & Williams, Ltd., Heather-st., Liverpool 4, £11,956 (subject to M. of E. approval).

Llandilo.—Six houses at Broad Oak, Llangathen, for R.D.C. Council Offices, Crescent-rd. Norman E. Evans, M.I.Mun.E., M.I.S.E., M.R.San.I., E. & S.: *D. J. Morgan, Pistyllgwynne Capel Isaac, nr. Llandilo, £7,680 (subject to approval of Welsh Board of Health)

L.C.C.—Contracts exceeding £2,500 in value placed by L.C.C. during period ending January 27:—Construction of six blocks of dwellings, a children's fitted playground and 74 perambulator sheds at St. Vincent estate, Poplar and Stepney, W. J. Simms, Sons & Cooke, Ltd., W.1; Electrical installation at Bolingbroke School, Battersea, R. H. Boyland & Co., Ltd., W.1.

¶London (Admiralty).—*Fareham*: H.M.S. "Collingwood," laying of pitchmastic flooring, The Neuchatel Asphalte Co., Ltd., 58, Victoria-st., London, S.W.1.

London (Air Ministry).—Contracts to value of £500 or over for week ended January 29.

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Building work: Winton Hayes, Ltd., Biggleswade, Beds; Wilson Lovatt & Sons, Ltd., Wolverhampton.

¶London (M.O.W.).—Contracts placed by M.O.W. during week ended January 22:—*London*: From Hyde Park Corner to Stanhope-gate, resurfacing roads, George Wimpey & Co., Ltd., Tile House-la., Denham, Middx; Section 7, Regent's Park Estate, W., reinstatement of stucco work and exterior repairs, Higgs & Hill, Ltd., South Lambeth-rd., S.W.8; Govt. bldgs., Bromyard-ave., Acton, internal and external painting, A. Bagnall & Co., Ltd., 141, Uxbridge-rd., W.12. *Essex*: County Prim. School, Stansted, Mountfichet, kitchen and dining-room, J. L. Glasscock & Sons, The Causeway, Bishops Stortford. *Kent*: County Prim. School, Sussex-rd., Tonbridge, scullery and dining-room, Y. J. Lovell & Son, Ltd., Elm Hall, East Grinstead, Sussex. *Lincs*: Tower-rd. School, Boston, kitchen and dining-room, John Porter & Son, Grosvenor-rd., Skegness, Lincs. *Middx*: Enfield Tele. Exchange, extensions, McManus & Co., Ltd., Whetstone, N.20. *Monmouthshire*: Castleton, post office radio research station, Hinkins & Frewin, Ltd., Castle Works, Rogerstone, Newport. *Notts*: Head Post Office, Queen-st., Nottingham, internal decorations, F. Labbett & Sons, 258, Derby-rd., Nottingham. *Oxfordshire*: Widley Copse, Burford, preparation of post Office television site, Stanley Lucas, Ltd., 16, Mackenzie-st., Slough, Bucks. *Perthshire*: Taymouth Castle, Aberfeldy, Civil Defence training school, W. & J. R. Watson, 81, Great King-st., Edinburgh. *Staffs*: M/Supply, Featherstone, nr. Wolverhampton, repairs to roads, Edwin Richards, Central Quarries, nr. Dudley, Worcestershire. *Sutherlandshire*: Scourie Public Schoo:, temporary classrooms, K. McKae & Co., 8a, Scalestone-rd., Wick, Caithness. *Warwickshire*: M/Lab. and Post Office, 281, Corporation-st., Birmingham, internal painting and cleaning, Clark & Fenn, Ltd., 16, Old Town, Clapham. *Yorks*: M/Lab. Camp, Priory-rd., Cottingham, Hull, internal painting and decorating, F. A. Wells, 1, Marlborough-ave., Hull; Mixed Parochial School, Swillington, kitchen and dining-room, Higgs & Hill, Ltd., St. Paul's-st., Leeds 1.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended January 22:—

Northumberland: Miscellaneous work, T. Norris, North Shields. *Co. Durham*: Painting work, Reid Bros., Newcastle-on-Tyne. *Yorks*: Miscellaneous work, J. L. Rodger & Sons, Ltd., Castleford. *Notts*: Building work, G. G. Middleton & Sons, Ltd., Worksop. *London, N.W.*: Building work, T. F. Nash Construction, Ltd., Hayes, Middx. *Kent*: Miscellaneous work, H. Goodsell, Maidstone. *Berks*: Miscellaneous work, Y. J. Lovell & Son, Ltd., Gerrards Cross, Bucks. *Wilts*: Building work, F. W. Hulbert, Light & Co., Ltd., Chippenham. *Devon*: Painting work, F. Labbett & Sons, Nottingham.

Manchester.—Additions to ironfoundry, Oldham-rd., Newton Heath, for Matthew Swain, Ltd.: *J. Gerrard & Sons, Ltd., Pendlebury-rd., Swinton, Manchester.

Manchester.—Alterations and additions at 47, Shude-hill, for W. H. Sutton, & Sons, 60, Springgdns. Young & Purves (A.), 12, St. Ann's-sq.: *W. H. Hardman, 48, Hope-st., Tipping-st., Ardwick, Manchester.

Manchester.—Branch Bank, 1169-1171, Ashton Old-rd., Openshaw, for Manchester and Salford Savings Bank, 30, Booth-st. J. W. Beaumont & Sons (F/F.), Danlee-bldgs., 53, Spring-gdns.: *Thomas Scott & Co. (Manchester), Ltd., 12, Atherton-st., Quay-st., Manchester 3.

Manchester.—Extensions at Atlas Engineering Works, Hollinwood-av., New Moston, Failsworth, for Atlas Engineering Co., Ltd. H. B. Bearon, architect, 11, The Rock, Bury: *R. Partington & Son, Ltd., Ledge-st., Middleton, Manchester.

Manchester.—Extensions at physics research laboratories, Oxford-rd. and Coupland-st., Chorlton-upon-Medlock, for Senate of Victoria University of Manchester. Thos. Worthington & Sons (F/F.), 178, Oxford-rd., Chorlton-upon-Medlock: *Robert Carlyle & Co., Ltd., Elsinore-rd., Old Trafford, Manchester 16.

Manchester.—10 houses at Myerscroft-cl., Broadway, Moston. L. D. Clegg, architect, Empire-chbrs., 5, Queen-st., Oldham: *C. E. Cocklin, 415, Foxdenton-rd., Chadderton, Oldham.

Manchester.—Houses at Woodhouse Park and Moss Nook, for City Council: *W. J. Simms, Sons & Cooke, Ltd., Nottingham (112); *W. H. Matthews, Ltd., Sale (42).

Middlesbrough.—For school meals canteen at Marton-rd. school: *J. H. Prondlock, 14, Grove-rd., North Ormesby, Middlesbrough.

Middlesbrough.—48 houses at Thorntree Estate, for T.C. J. A. Kenyon, B.E.: *J. McCreton, Ltd., King's-rd., Middlesbrough.

Norfolk.—Five police houses in five districts. C. H. Thurston (L.), F.R.I.C.S., County A. Quantities by same. Gt. Walsingham: *Potter Bros., East Dereham, £2,136; Briston: *F. Woodrow, Holt, £2,061; Potter Heigham: *E. Bush, Jnr., Winterton, £1,941; King's Lynn (2): *A. & J. Jackson, King's Lynn, £3,800.

Norfolk Standing Joint Committee.—Six

police houses in various districts. C. H. Thurston (L.), F.R.I.C.S., County A., 25, Thorpe-rd., Norwich. Castle Acre (1): *R. C. Blake, Roydon, King's Lynn, £1,870. Fakenham (3): *Allnatt (London), Ltd., Cattle Market-st., Fakenham, £5,543, King's Lynn (2): *Suiter Bros., Baptists Yard, Broad-st., King's Lynn, £3,662.

North Shields.—New showrooms at Bedford-st., for Northern Electricity Board. Architects, L. J. Couves & Partners, Carliol House, Newcastle: *Hastie Burton, Ltd., King-st., North Shields.

Overton.—10 brick houses at Arrowery, nr. Hanmer, for R.D.C. F. A. Roberts (F.), Earlchbrs., Mold, Flintshire: *Alun Edwards, Ltd., Cefn-y-Bedd, Caergwrle, Wrexham.

Rochdale.—Works for T.C. W. H. G. Mercer, B.Sc., A.M.Inst.C.E., B.S. Alterations and new classroom block at High Birch special residential and day school, first portion: *Unit Construction Co., Ltd., Brook-st., Knutsford, Ches, £30,000; 100 houses at Kirkholt estate: *A. Cassel & Sons, Ltd., 1-11, Teneriffe-st., Salford 7, £124,765.

Rotherham. — Prefabricated buildings on frontages to Howard-st. and Brinsworth, as extensions to Rotherham Technical college. E. J. Manson, B.Eng., A.M.Inst.C.E., B.E., Municipal-bldgs.: *Parkin (Rotherham), Ltd., Bawtry-rd., Rotherham.

Salford.—Works for T.C.: 6 shops and maisonettes at Wardleworth estate, Eccles Old-rd., Pendleton, *G. Fisher (Fallowfield), Ltd., Manchester; erection of open-air school at Claremont Farm, Pendleton, *J. Gerrard & Sons, Ltd., Swinton, £53,250 (both subject to M.H. approval).

Scottish Special Housing Association, Ltd.—Contracts placed for period December 11 to January 15.

House erection: Laighstonehall, Hamilton (110 tradl.), Durastic, Ltd., 257, West George-st., Glasgow, floor finish. Munlochy, Ross-shire (4 tradl.), Thos. Tulloch, Inverness, painter. Millbuie, Poyntzfield (12 tradl.), Thos. Tulloch, Inverness, painter. Millbuie, Poyntzfield (12 tradl.), The Highland Glazing Co., Ltd., Inverness, glazier. Munlochy, Ross-shire (4 tradl.), The Highland Glazing Co., Ltd., Inverness, glazier. Newtown, Bo'ness (56 S.T.), James Strang & Son, Bellevue, Polmont, fencing. Cuiken Burn, Penicuik (90 Cruden), Penicuik and District Gas Co., Ltd., Penicuik, gas services; Welton-rd., Mauchline (76 Cruden), Hay & Anderson, Broomhill Farm, Kilwinning, additional fencing. Polbeth, Midlothian (72 S.T.), James Strang & Son, Polmont, privet hedging. Kennoway, Fifeshire (60 tradl.), Robt. Terras, Jr., Ltd., East Wemyss, Fife, fencing and footpaths. Wards of Pitforthie (68 tradl.), Durastic, Ltd., Glasgow, floor finish. Site servicing: Belvedere Wood, Bathgate (96 tradl., 50 Weir), S.S.H.A., site servicing. Woodmill, Dunfermline (150 Weir), S.S.H.A., surfacing roads and footpaths. Mains of Fintry, Dundee (54 Orlit, 200 Atholl and 176 to be decided), S.S.H.A., surfacing roads and footpaths.

Skipton.—Six houses at Wheatlands-la. site, Glusburn, for R.D.C. T. Yeadon, S., Council Offices, 21, Granville-st.: *Walter Smith, Gilstead Quarris, Gilstead, Bingley, Yorks (subject to approval of M.H.).

Stockport.—Works for T.C. W. F. Gardner, M.Inst.C.E., B.S., Town Hall. 10 houses at Didsbury-rd. site, Heaton Mersey: *Senior Building Co., Ltd., 187, Wilmslow-rd., Cheadle, Ches, £14,012.

Stretford.—St. Hugh of Lincoln Presbytery, Glastonbury-rd., Lostock, for Right Rev. H. V. Marshall, Bishop of Salford, Wardley Hall, Worsley. H. Greenhalgh (L.), 15, Mawdsley-st., Bolton: *Moston Brick & Building Co., Ltd., Kenyon-la., Moston, Manchester.

Sutton and Cheam.—16 houses at Sutton Common-rd., for T.C. Boro' E., Architect & S. Quantities by A. J. Willis & Thompson: *Howard M. (Mitcham), London-rd., Mitcham, £25,700.

Truro.—30 houses, Malpas-rd., for T.C. S. John O'Farrell, M.I.Mun.E., M.R.S.I., City S.: *E. Thomas, King's-av., Falmouth, £39,757.

Tynemouth.—School meals canteen at Tynemouth High School: *Constables (Newcastle), Ltd., Great House, Newcastle.

Walsall.—Garage at Corporation Depot, for T.C. M. E. Habershon, O.B.E., M.Eng., M.Inst.C.E., B.E., The Council House: *J. A. & H. Taylor, Marlborough-st., Bloxwich, Walsall, £7,587.

Walthamstow.—36 flats at Forest Hall, Oak Hill. Boro' A., Town Hall, for T.C. Quantities by C. E. Ball & Partners: *Unera Construction, Ltd., 386, Kensington High-st., London, W.14.

Walthamstow.—Civic restaurant at site of Public Baths, High-st., for B.C. F. G. Southgate, Boro' A. Quantities by C. E. Ball & Partners: *Field-Davis, Ltd., Norfolk-rd., Barking, Essex.

Westminster.—Structural works at the Council Chamber, for the City Council. Plans by Stanley Hamp (F.): *Trollope & Colls, Ltd., Gt. Queen-st., W.C.2, £15,093 (subject to M.H. approval).

Wood Green.—56 flats at Vincent-rd. site, for B.C.: †M. James & Co., Ltd., £77,518.

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